

NEC

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Empowered by Innovation

SERVICE MANUAL

PLASMA MONITOR

MODEL PX-50XM4 series
PX-50XR4 series

- This service manual provides the technical materials for maintenance servicing, programmed for the technical personnel in charge of repair services. Prior to starting maintenance servicing, read through the [SAFETY SERVICE (P3-1)] without fail and observe the caution notes described therein.
- External appearance and specifications are subject to change without notice, for reasons of quality and performance improvements and others.
- In order to maintain safety, quality, and performance, use the genuine parts, without fail, at the time of maintenance servicing.

NEC Plasma Display Corporation

TOKYO, JAPAN

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INTRODUCTION

The merchandise listed in this Service Manual is categorized as shown below. All the items are applicable to HDCP.

■ PX-50XM4 Series (Cabinet color: gray, Filter: AR filter provided with a loop-out feature)

1. Destination

- | | |
|--|-----------|
| (1) For Japan | PX-50XM4J |
| (2) For North America | PX-50XM4A |
| (3) For European countries | PX-50XM4G |
| (4) For countries other than the above areas | PX-50XM4W |

2. EMI standards

- | | |
|-------------|---|
| (1) CLASS A | PX-50XM4J,PX-50XM4A,PX-50XM4W,PX-50XM4G |
| (2) CLASS B | No applicable model |

■ PX-50XR4 Series (Cabinet color: Silver, Filter: AR filter without a loop-out feature)

1. Destination

- | | |
|--|---------------------|
| (1) For Japan | No applicable model |
| (2) For North America | PX-50XR4A |
| (3) For European countries | PX-50XR4G |
| (4) For countries other than the above areas | PX-50XR4W |

2. EMI standards



- | | |
|-------------|-------------------------------|
| (1) CLASS A | No applicable model |
| (2) CLASS B | PX-50XR4A,PX-50XR4W,PX-50XR4G |

SAFETY SERVICE




■Safety cautions

The matters to be observed without fail are explained below. These matters are indispensable for the prevention of an accident during the maintenance servicing, the “security of products” after the completion of servicing work, and the “prevention of the repeated occurrence of similar fault.”

(1) The degree of danger and material damage, caused as a result of wrong use by disregarding the contents of the display” is distinguished and explained in the table below.

	WARNING	If this display is disregarded and equipment is handled wrongly, this can be a cause of physical injury and a fire, thus leading a person to death or serious injury.
	CAUTION	If this display is disregarded and equipment is handled wrongly, this may lead to personal injury or material damage.


(2) Kinds of the matters to be observed are classified and explained in the icons shown below.

	This icon indicates a dangerous place where an electric shock is anticipated.
	This icon indicates the contents of “caution” that must be borne in mind, without fail.
	This icon indicates the contents of “caution” that must be practiced, without fail.


WARNING

• **Observe the caution matter, without fail.**



- In the place where a particular caution is needed during maintenance servicing, such a caution note is displayed with a label or a stamp that is given to the cabinet, chassis, PWB, etc. These caution notes and also the caution matters of  **WARNING** given in the instruction manuals, etc., must be observed, without fail.

• **Be careful of an electric shock or a burn.**



- The power block or the PDP module involves the sections where high voltage or high temperature is prevalent. When equipment is energized, use working gloves in order to prevent an electric shock or a burn. At the time of transportation, disassembly, reassembly, and the replacement of parts, such a servicing job must be done after pulling out the power plug.

• **Modification of equipment is absolutely prohibited. Use the specified parts at all times.**



- If any modification is performed, the validity of the manufacturer's warranty is lost at that moment. The personnel who did this modification is responsible for the physical injury or the like, if it should occur as a result of the modification. The parts used are given the safety-based characteristics, such as non-flammability or sufficient withstand voltage. The parts to be replaced shall be those which are specified in the list of replacement parts.(Example: The lithium battery (circuit symbol BA9501 in the MAIN PWB) will give rise to explosion if its polarity is wrongly treated.

• **The replaced parts and wiring must be arranged in the original conditions.**



- For safety reasons, insulation materials like tubes and tapes may be used or some parts may be mounted clear of the PWB. The internal wiring and the fastening with the clampers for separation from high-heat and high-voltage parts shall be returned to their original conditions, without fail.

• **For the maintenance servicing, safety inspection is needed in accordance with the check list.**



- Inspection should be carried out according to the check list shown below, in regard to safety inspection before and after repairing, authentic repair, and explanation to the user.

(Method of insulation check)

Mount a PDP module on the product to complete it. After the completion of aging and others, pull out the power plug from the wall outlet, remove the cable, and turn on the power switch. Use a 500V megger (Note 1) and confirm that the insulation resistance is 50M. or more between each terminal (except for the 3-core earth terminal) of the power plug (Note 2) and the external exposed metallic parts (Note 3). If the insulation resistance is found to be below the specified value, recover the faulty section and make another insulation check again.

(Note 1) If a 500V megger is not available at that time, use a circuit tester or the like.

(Note 2) In the case of a 3-core terminal, the earth resistance shall be 1Ω or less between the earth terminal and the earth side of each input terminal.

(Note 3) Head phone jack, speaker terminals, remote control terminals, each I/O terminals, control terminals, screws, etc.


Check item			Check column
Safety inspection before repairing	Installation conditions	Is there any influence by high temperatures (due to direct sunlight, etc.), moisture (steam, etc.), oil fume, dust, and dew condensation?	
		Is the condition of ventilation acceptable (distance to the wall, ventilation holes, etc.)?	
		Is the condition of the antenna acceptable (reach to the wire, bend, tilt, etc.)?	
		Is the condition of power supply acceptable (regular outlet, adequate earthing, concentrated wiring, etc.)?	
		Is the condition of installation acceptable (unstability, height, tilt, falling preventive materials, etc.)?	
	Product main body	Are the power plug and the power cord free from damage or the attachment of dust?	
		Is the product free from unusual sound, unusual odor, or unusually high temperature?	
		Are the knobs, handles, and back cabinet free from abnormality (rattling, drop off, etc.)?	
Authentic repair	Trouble-shooting	Is equipment free from any abnormality in daily use?	
		Is the symptom examined according to the user's statement?	
		Is the product disassembled to the grade where troubleshooting is possible?	
		Is the symptom reproduced, the faulty part located as a result of fault diagnosis, and replaced?	
	Specified parts	Is the normal condition confirmed after aging?	
		Is the part, specified in the list of parts, used for the power unit?	
		Is the part, specified in the list of parts, used for the insulation material (material, thickness, etc.)?	
		Is the part, specified in the list of parts, used for the power plug and the power cord?	
		Is the part, specified in the list of parts, used for the internal cabling and the high voltage lead wires?	
		Is the part, specified in the list of parts, used for the PDP module?	
		Are the rest of replaced parts those specified in the list of parts?	
	Wires mounted	Is the part version correct?	
		Are the part mounting position, fixing method, and the distance the same as those of original?	
		Is the wiring layout the same as the original (connector, clasper, distance from a heat generating part, etc.)?	
		Is the soldering condition acceptable (whisker, too much solder, tunnel, failure in winding, etc.)?	
		Is the insulation material the same as the original (tubes, tapes, fiber, etc.)?	
Safety inspection after repairing	Are the repaired section and its peripheral parts free from abnormality?		
	Is there any intrusion of foreign substances (solder chips, wire chips, screw chips, screws, etc.)?		
	Is everything free from danger due to deterioration (discoloration, damage, leakage, etc.)?		
	Is the safety protection circuit in normal operation?		
	Are contamination and dust removed after final finish?		
	Is there any failure in mounting and tightening (back cabinet, falling preventive materials, etc.)?		
	Is there any influence by high temperatures (direct sunlight, stove, etc.), moisture (steam, etc.), oil fume, dust, and dew condensation?		
	Is the condition of ventilation acceptable (distance to the wall, ventilation holes, etc.)?		
	Is the condition of the antenna acceptable (reach to the wire, bend, tilt, etc.)?		
	Is the condition of power supply acceptable (regular outlet, adequate earthing, concentrated wiring, etc.)?		
	Is the condition of installation acceptable (unstability, height, tilt, falling preventive materials, etc.)?		
	Is the insulation check finished with a circuit tester or the like? (Refer to the above description, "Method of insulation check.")		
Explanation to the user	Are the contents and actual treatment of repairing and safety inspection services duly explained?		
	Explanation of use	To use equipment after reading through the instruction manual.	
		Not to dislodge the back cabinet.	
		Not to insert anything in ventilation holes and clearances.	
		To pull out the power plug if the product is not used for a long time.	
		To ask an NEC's authorized maintenance service company for the cleaning of the product interior for the removal of dust.	
		To turn off the power switch when cleaning the panel surface and the cabinet.	
		To turn off the power switch of the main unit for the product provided with a remote control, in case of going out or sleeping.	
	Are explanations given to pull out the power plug in case of abnormality and to contact the dealer or an NEC's authorized maintenance service company.		



CAUTION

- **Observe the caution matter, without fail**



- The caution matters of  **CAUTION** given in the instruction manuals, etc., must be observed, without fail.

- **Do not give shocks and vibration.**



- The panel surface (display plane) of the filter and the PDP module is made of glass. If any shocks or vibration is applied, it may be broken and the scattered glass chips will be a cause of injury.

- **Do not put anything.**



- Do not put anything on the product. Otherwise, this can be a cause of injury as a result of falling down or dropping caused by imbalance.

- **Transportation must be done by enough personnel.**



- The product is heavy. In the case of transportation, unpacking, or packing, more than two persons should do it (four persons for a product of 50-inch or larger) by supporting the top and the bottom of the product.

■Miscellaneous caution matters

- (1) This product uses highly integrated semiconductor parts. Since these parts are fragile to electrostatic charges, earth bands should be used for handling. The product should be handled where measures have been taken against electrostatic charges.
- (2) For this product, the PDP modules and the PWBs are repaired by replacement in a unit. Therefore, the units of the PDP modules and the PWBs must not be repaired or disassembled. Otherwise, the validity of warranty will be lost.
- (3) If this product is used for the fixed character display or the like as in the case of a character display board, a phenomenon of burning (not warranted) will occur. Burning is a phenomenon that the unevenness in the brightness is caused in the display. In such a case, the brightness in the section where the integrated display time is longer becomes lower than the brightness in another section where the integrated display time is shorter. This phenomenon is in proportion to the integrated display time and the brightness. For this reason, to relieve this difficulty during servicing, do not use any still picture, but use a display by motion pictures of a video or the like. In addition, use "FULL" for the screen mode and avoid using any display by "NORMAL", "TRUE", or MULTI SCREEN like side by side etc. If it is necessary to use only a still picture for unavoidable reasons, use a burning relief function such as "PLE LOCK", "ORBITER", "SCREEN WIPER", etc.
- (4) When a PDP module is operated after a long time of storage, it may encounter a difficulty like a failure in displaying a screen or unstability according to the condition of storage. In such a case, the PDP module should be incorporated in the product and aging treatment should be carried out for about two hours (all screen display).
- (5) Sulfides will deteriorate the PDP module and this is a cause of malfunction. Therefore, it is absolutely prohibited to put any vulcanized rubber or a material containing sulfur in the vicinity of the PDP module.
- (6) When taking out a PDP module from the maintenance package box, do it slowly so that the

panel surface does not get any shock or stress.

- (7) If one touches the connector of the flexible cable exposed to the rear side of the PDP module, there is danger of causing a poor contact. As such, it must be handled with utmost care. In addition, the flexible cable is very weak in mechanical strength. Therefore, this cable must not be touched during handling.
- (8) The panel surface of the filter and the PDP module is easy to be hurt. These components should be handled very carefully not to press or rub them with a hard thing. Never put them on a hard thing with the panel surface faced downwards.
- (9) When the panel surface of the PDP module is contaminated, gently wipe off the contaminant with a piece of soft dry cloth. Liquid-state contamination can be removed by lightly pressing it, without rubbing it. If it is difficult to remove the contamination, use a piece of cloth soaked with a neutral detergent. The cloth for wiping off should be clean. Never use the same cloth repeatedly. If a cleansing detergent or water drops should enter the module interior or be attached to the module surface other than the display plane at the time of cleaning, this will give rise to the destruction of the product when the product is energized.
- (10) Refer to the "Instruction Manual" in regard to contamination in the filter and the cabinet.
- (11) When transporting this product, use the packing materials specified in the list of parts. Once used, such packing materials should not be used again.
- (12) This product is composed of a variety of parts, such as those made of materials like glass, metal, plastics, etc., and those like a lithium battery (circuit symbol of the MAIN PWB: BA9501), etc. Therefore, when abandoning this product, this should be done in accordance with the relevant law of the nation or an autonomous body.

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to above the Instructions.

PlasmaSync Plasma Monitor

***PlasmaSync™ 50XM4
PX-50XM4A***

Model Information

For the operation of your plasma monitor,
refer to “Operation Manual”.

NEC

NEC Solutions (America), Inc.

Important Information

Warning

Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/ Data Processing Equipment ANSI/NFPA 75.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

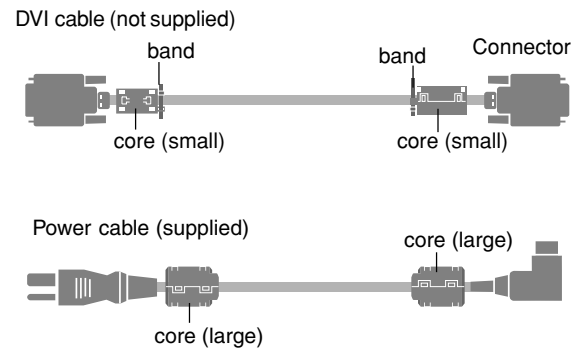
NOTE:

When you connect a computer to this monitor, use an RGB cable including the ferrite core on both ends of the cable. And regarding DVI and power cable, attach the supplied ferrite cores. If you do not do this, this monitor will not conform to mandatory FCC standards.

Attaching the ferrite cores:

Set the ferrite cores on both ends of the DVI cable (not supplied), and both ends of the power cable (supplied). Close the lid tightly until the clamps click.

Use the band to fasten the ferrite core (supplied) to the DVI cable.



Recommandations importantes

Avertissement

Ne pas utiliser dans une salle d'ordinateurs telle que définie dans la Norme pour la protection des ordinateurs électroniques/appareils de traitement des données ANSI/NFPA75.

DOC avis de conformation

Cet appareil numérique de la Classe A respecte toutes les exigences du Règlement sur le Matériel Brouilleur du Canada.

REMARQUE:

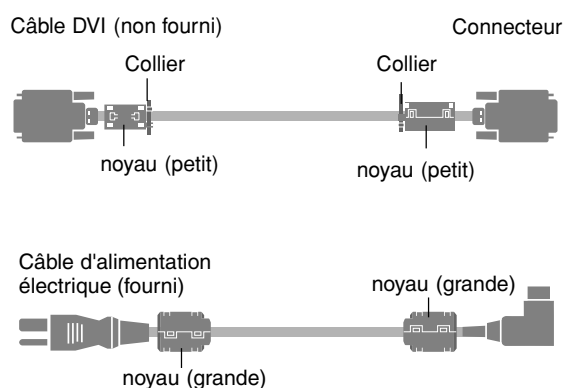
Pour raccorder un ordinateur à ce moniteur, procéder à l'aide d'un câble RGB à âme de ferrite aux deux extrémités. Sur les câbles DVI et les câbles d'alimentation électrique, fixer les âmes de ferrite fournies aux extrémités. Si vous ne le faites, le moniteur ne sera pas en conformité avec les exigences des standards FCC.

Fixation des noyaux en ferrite.

Monter les tores en ferrite aux deux extrémités du câble DVI (non fourni) et aux deux extrémités du câble d'alimentation électrique (fourni).

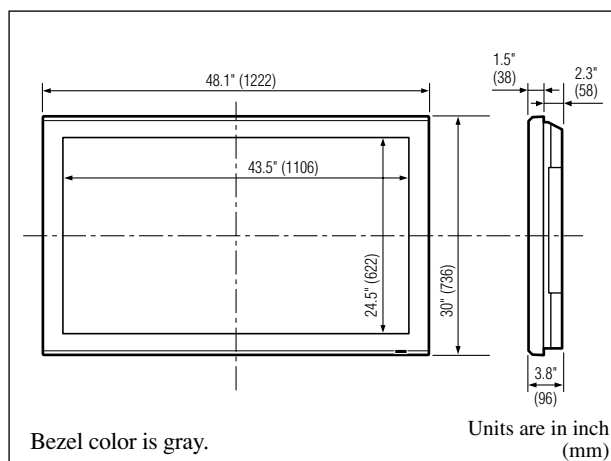
Fermez doucement le couvercle jusqu'à ce que les crans se clipsent.

Fixer le tore en ferrite (fourni) au câble DVI à l'aide d'un collier.



Specifications

Screen Size	43.5"(H) × 24.5"(V) inches 1106(H) × 622(V) mm diagonal 50"
Aspect Ratio	16 : 9
Resolution	1365(H) × 768(V) pixels
Pixel Pitch	0.032"(H) × 0.032"(V) inches 0.81(H) × 0.81(V) mm
Color Processing	4,096 steps, 68.7 billion colors
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD*1, DVD*1, DTV*1
Input Terminals (VIDEO1 and RGB1 can also be used as OUTPUT terminals)	
RGB	
Visual 1 (Analog)	mini D-sub 15-pin × 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) × 1*2
Visual 3 (Digital)	DVI-D 24-pin × 1*3
Video	
Visual 1	BNC × 1
Visual 2	RCA-pin × 1
Visual 3	S-Video: DIN 4-pin × 1
DVD/HD/DTV	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) × 1*1
Visual 2	BNC (Y, PB[CB], PR[CR]) × 1*1,*2
Visual 3	DVI-D 24-pin × 1*3
Audio	Stereo RCA × 3 (Selectable)
External Control	D-sub 9-pin × 1 (RS-232C)
Sound output	9W+9W at 6 ohm
Power Supply	AC100-240V 50/60Hz
Current Rating	7.6A (maximum)
Power Consumption	435W (typical)
Dimensions	48.1 (W) × 30 (H) × 3.8 (D) inches 1222 (W) × 736 (H) × 96(D) mm
Weight	97 lbs / 44 kg (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Humidity	20 to 80% (no condensation)
Altitude	0 to 9180 feet / 0 to 2800 m
Storage Temperature	-10°C to 50°C / 14°F to 122°F
Humidity	10 to 90% (no condensation)
Altitude	0 to 9840 feet / 0 to 3000 m
Front Panel User Controls	Power on/off, Input source select, Volume up/down/ OSM control
Remote Control Functions	Power on/off, Input source select, OSM control, Volume up/down, Cursor (UP, DOWN, LEFT, RIGHT), Pointer, Zoom up/ down, Off timer, Wireless/ Wired remote control, Split screen buttons
OSM Functions	Picture (Contrast/Brightness/Sharpness/ Color/Tint/ Picture mode/Noise reduction/Color temperature/ White balance/Gamma/Low tone/Color tune), Audio (Bass/Treble/Balance/Audio input), Image Adjust (Aspect mode/V-Position /H-Position/V- Height /H-Width/Auto Picture/Fine picture/Picture adjustment), Option1 (OSM/BNC Input/D-Sub Input/RGB Select/HD Select/Input Skip/All Reset), Option2 (Power management/Cinema mode/Long life [PLE, Orbiter, Inverse, White, Screen wiper, Soft focus]/Gray level/S1/S2/Picture size/DVI Set up/ CloseCaption/Caption cont), Option3 (Timer/Power on mode/Control lock/IR Remote/Loop out/ID number/Video wall [Divider, Position, Disp. mode, Auto ID, Image adjust, Power on delay, PLE link, Timer]), Option4 (Sub. P detect/Zoom nav/Pic freeze/Seamless SW), Advanced OSM, Language*, Color system, Source information *English, German, French, Italian, Spanish, Swedish, Chinese, Russian



The features and specifications may be subject to change without notice.

*1 HD/DVD/DTV input signals supported on this system

480P (60 Hz)	480I (60 Hz)	525P (60 Hz)
525I (60 Hz)	576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)	720P (60 Hz)
1035I (60 Hz)	1080I (50 Hz)	1080I (60 Hz)

*2 The 5-BNC connectors are used as RGB/PC2 and HD/DVD2 input. Select one of them under "BNC INPUT".

*3 Compatible with HDCP.

Supported Signals

- 640 × 480P @ 59.94/60Hz
- 1280 × 720P @ 59.94/60Hz
- 1920 × 1080I @ 59.94/60Hz
- 720 × 480P @ 59.94/60Hz
- 1440 (720) × 480I @ 59.94/60Hz
- 1920 × 1080I @ 50Hz
- 720 × 576P @ 50Hz
- 1440 (720) × 576P @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact NEC Solutions (America), Inc. and also the manufacturer of the source equipment.

Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Video Wall 4-25 multi screen, Self Diagnosis, Image Burn reduction tools (PLE LOCK1~3, INVERSE, WHITE, ORBITER (Auto1,2/Manual), SCREEN WIPER), Color Temperature select (high/mid/mid low/low, user has 4 memories), Control lock (Except power SW), Auto Picture, Input Skip, Color Tune, Low Tone (3 mode), Auto ID, Programmable Timer, Gamma Correction (4 mode), Loop through interface, Plug and play (DDC1, DDC2b, RGB3: DDC2b only), Split screen operations
Accessories	Remote control with two AAA batteries, Power cord, Manuals, Safety metal fittings, Ferrite cores, Bands, Cable clamps
Regulations	UL Approved (UL 60950-1, CAN/CSA C22.2 No.60950-1) DOC Canada requirements Meets FCC Class A requirements

Table of Signals Supported

Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 1024 dots×768 lines signal. (Except for *2,3,4)
- When the screen mode is TRUE, the picture is displayed in the original resolution.
- When the screen mode is FULL, each signal is converted to a 1365 dots×768 lines signal. (Except for *3)

Computer input signals supported by this system

Computer Input Signals Supported by this System														
Model	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode			RGB select*5	DVI	Memory	
				Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	TRUE	FULL (16:9)				
Signal Type														
	640 × 400	70.1	31.5	NEG	NEG	YES	YES	YES*2	YES	YES	--	NO	4	
IBM PC/AT*8 compatible computers	640 × 480	59.9	31.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	5	
		72.8	37.9	NEG	NEG	YES	YES	YES	YES	YES	--	YES	7	
		75.0	37.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	8	
		85.0	43.3	NEG	NEG	YES	YES	YES	YES	YES	--	YES	9	
		100.4	51.1	NEG	NEG	YES	YES	YES	YES	YES	--	YES	41	
		120.4	61.3	NEG	NEG	YES	YES	YES	YES	YES	--	YES	42	
		848 × 480	60.0	31.0	POS	POS	YES	YES	--	YES	YES	WIDE2	YES	19
	852 × 480*1	60.0	31.7	NEG	NEG	YES	YES	--	YES	YES	WIDE1	YES	17	
	800 × 600	56.3	35.2	POS	POS	YES	YES	YES	YES	YES	STILL	YES	11	
		60.3	37.9	POS	POS	YES	YES	YES	YES	YES	STILL	YES	12	
		72.2	48.1	POS	POS	YES	YES	YES	YES	YES	--	YES	13	
		75.0	46.9	POS	POS	YES	YES	YES	YES	YES	--	YES	14	
		85.1	53.7	POS	POS	YES	YES	YES	YES	YES	--	YES	15	
		99.8	63.0	POS	POS	YES	YES	YES	YES	YES	--	YES	43	
		120.0	75.7	POS	POS	YES	YES	YES	YES	YES	--	YES	44	
	1024 × 768	60.0	48.4	NEG	NEG	YES	YES	YES*3	--	YES	STILL	YES	24	
		70.1	56.5	NEG	NEG	YES	YES	YES*3	--	YES	--	YES	25	
		75.0	60.0	POS	POS	YES	YES	YES*3	--	YES	STILL	YES	26	
		85.0	68.7	POS	POS	YES	YES	YES*3	--	YES	--	YES	27	
		100.6	80.5	NEG	NEG	YES	YES	YES*3	--	YES	--	YES	45	
	1152 × 864	75.0	67.5	POS	POS	YES	YES	YES	--	YES	STILL	YES	51	
	1280 × 768	56.2	45.1	POS	POS	YES	YES	--	--	YES	WIDE1	NO	52	
		59.8	48.0	POS	NEG	YES	YES	--	--	YES	WIDE3	YES	80	
	1280 × 768*9	69.8	56.0	NEG	POS	YES	YES	--	--	YES	WIDE1	YES	66	
	1280 × 800*9	60.0	49.7	NEG	NEG	YES	YES	--	--	YES	WIDE1	YES	21	
	1280 × 854*9	60.0	53.1	NEG	NEG	YES	YES	--	--	YES	WIDE2	YES	37	
	1360 × 765	60.0	47.7	POS	POS	YES	YES	--	--	YES*3	WIDE1	NO	22	
	1360 × 768	60.0	47.7	POS	POS	YES	YES	--	--	YES*3	WIDE1	YES	22	
	1376 × 768	59.9	48.3	NEG	POS	YES	YES	--	--	YES	WIDE2	YES	53	
	1280 × 1024	60.0	64.0	POS	POS	YES	YES	YES*4	--	YES	STILL	YES	29	
		75.0	80.0	POS	POS	YES	YES	YES*4	--	YES	--	YES	30	
		85.0	91.1	POS	POS	YES	YES	YES*4	--	YES	--	YES	40	
		100.1	108.5	POS	POS	YES	YES	YES*4	--	YES	--	NO	47	
	1680 × 1050*9	60.0	65.3	NEG	NEG	YES	YES	--	--	YES	WIDE4	YES	38	
	1600 × 1200	60.0	75.0	POS	POS	YES	YES	YES	--	YES	--	YES	54	
		65.0	81.3	POS	POS	YES	YES	YES	--	YES	--	NO	55	
		70.0	87.5	POS	POS	YES	YES	YES	--	YES	--	NO	56	
		75.0	93.8	POS	POS	YES	YES	YES	--	YES	--	NO	57	
		85.0	106.3	POS	POS	YES	YES	YES	--	YES	--	NO	58	
	1920 × 1200*9	60.0	74.6	NEG	NEG	YES	YES	--	--	YES	WIDE2	--	81	
	1920 × 1200RB*9	60.0	74.0	NEG	NEG	YES	YES	--	--	YES	WIDE3	YES	88	
	Apple Macintosh*6 *8	640 × 480	66.7	35.0	Sync on G	Sync on G	--	--	YES	YES	YES	--	NO	6
832 × 624		74.6	49.7	Sync on G	Sync on G	--	--	YES	YES	YES	--	NO	16	
1024 × 768		74.9	60.2	Sync on G	Sync on G	--	--	YES*3	--	YES	WIDE1	NO	28	
1152 × 870		75.1	68.7	Sync on G	Sync on G	--	--	YES	--	YES	WIDE1	NO	39	
1440 × 900*9		60.0	56.0	NEG	NEG	YES	YES	--	--	YES	--	YES	89	
Work Station (EWS4800)*8	1280 × 1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	--	YES	--	YES	29	
		71.2	75.1	NEG	NEG	YES	YES	YES*4	--	YES	--	YES	48	
Work Station (HP)*8	1280 × 1024	72.0	78.1	--	--	--	--	YES*4	--	YES	--	YES	59	
Work Station (SUN)*8	1152 × 900	66.0	61.8	C Sync	C Sync	--	--	YES	--	YES	--	YES	60	
		76.0	71.7	C Sync	C Sync	--	--	YES	--	YES	--	YES	61	
	1280 × 1024	76.1	81.1	C Sync	C Sync	--	--	YES*4	--	YES	--	YES	30	
Work Station (SGI)	1024 × 768	60.0	49.7	--	--	--	--	YES*3	--	YES	--	YES	62	
	1280 × 1024	60.0	63.9	--	--	--	--	YES*4	--	YES	--	YES	29	
IDC-3000G														
	PAL625P	768 × 576	50.0	31.4	NEG	NEG	YES	YES	YES*7	--	YES*7	--	NO	31
	NTSC525P	640 × 480	59.9	31.5	NEG	NEG	YES	YES	YES*7	--	YES*7	MOTION	NO	32

- *1 Only when using a graphic accelerator board that is capable of displaying 852×480 .
- *2 This signal is converted to a $1024 \text{ dots} \times 640 \text{ lines}$ signal.
- *3 The picture is displayed in the original resolution.
- *4 The aspect ratio is 5:4. This signal is converted to a $960 \text{ dots} \times 768 \text{ lines}$ signal.
- *5 Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
- *6 To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin) to your computer's video port.
- *7 Other screen modes (ZOOM and STADIUM) are available as well.
- *8 When viewing a moving picture at a vertical frequency greater than 65Hz, the picture may sometimes be unstable (jumpy). If this occurs, please set the refresh rate of the external equipment to 60Hz.
To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (567 interlaced lines, 50Hz refresh rate) when sync polarity is "Sync on Green", set "RGB SELECT" to "MOTION".
- *9 CVT standard compliant.

NOTE:

- While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.
 - When a $1280 \text{ dots} \times 1024 \text{ lines}$ signal or $1600 \text{ dots} \times 1200 \text{ lines}$ signal is input to the monitor, the picture will be compressed.
 - This monitor has a resolution of $1365 \text{ dots} \times 768 \text{ lines}$. It is recommended that the input signal should be XGA, wide XGA, or equivalent.
 - With digital input some signals are not accepted.
 - The sync may be disturbed when a nonstandard signal other than the aforementioned is input.
 - If you are connecting a composite sync signal, use the HD terminal.
-

What is HDCP/HDCP technology?

HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).

If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

-
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PlasmaSync Plasma Monitor

Operation Manual **(Enhanced split screen Model)**

For the specifications of your plasma monitor,
refer to “Model Information”.

NEC


NEC Solutions (America), Inc.

Important Information


Precautions

Please read this manual carefully before using your plasma monitor and keep the manual handy for future reference.


CAUTION




RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside of this unit.



This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS, UNLESS THE PRONGS CAN BE FULLY INSERTED. REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warnings and Safety Precaution

This plasma monitor is designed and manufactured to provide long, trouble-free service. No maintenance other than cleaning is required. Please see the section "Plasma monitor cleaning procedure" on the next page.

The plasma display panel consists of fine picture elements (cells) with more than 99.99 percent active cells. There may be some cells that do not produce light or remain lit.

For operating safety and to avoid damage to the unit, read carefully and observe the following instructions. To avoid shock and fire hazards:

1. Provide adequate space for ventilation to avoid internal heat build-up. Do not cover rear vents or install the unit in a closed cabinet or shelves.
If you install the unit in an enclosure, make sure there is adequate space at the top of the unit to allow hot air to rise and escape. If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location, and wait for 60 minutes to cool the monitor. If the problem persists, contact your dealer for service.
2. Do not use this unit's polarized plug with extension cords or outlets unless the prongs can be completely inserted.

3. Do not expose the unit to water or moisture.
4. Avoid damage to the power cord, and do not attempt to modify the power cord.
5. Unplug the power cord during electrical storms or if the unit will not be used over a long period.
6. Do not open the cabinet which has potentially dangerous high voltage components inside. If the unit is damaged in this way the warranty will be void. Moreover, there is a serious risk of electric shock.
7. Do not attempt to service or repair the unit. The manufacturer is not liable for any bodily harm or damage caused if unqualified persons attempt service or open the back cover. Refer all service to authorized Service Centers.

To avoid damage and prolong operating life:

1. Use only with 100-240V 50/60Hz AC power supply. Continued operation at line voltages greater than 100-240 Volts AC will shorten the life of the unit, and might even cause a fire hazard.
2. Handle the unit carefully when installing it and do not drop.
3. Set the unit away from heat, excessive dust, and direct sunlight.
4. Protect the inside of the unit from liquids and small metal objects. In case of accident, unplug the power cord and have it serviced by an authorized Service Center.
5. Do not hit or scratch the panel surface as this causes flaws on the surface of the screen.
6. For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.
7. As is the case with any phosphor-based display (like a CRT monitor, for example) light output will gradually decrease over the life of a Plasma Display Panel.
8. To avoid sulfurization it is strongly recommended not to place the unit in a dressing room in a public bath or hot spring bath.
9. Do not use in a moving vehicle, as the unit could drop or topple over and cause injuries.
10. Do not place the unit on its side, upside-down or with the screen facing up or down, to avoid combustion or electric shock.

Plasma monitor cleaning procedure:

1. Use a soft dry cloth to clean the front panel and bezel area. Never use solvents such as alcohol or thinner to clean these surfaces.
2. Clean plasma ventilation areas with a vacuum cleaner with a soft brush nozzle attachment.
3. To ensure proper ventilation, cleaning of the ventilation areas must be carried out monthly. More frequent cleaning may be necessary depending on the environment in which the plasma monitor is installed.

Recommendations to avoid or minimize phosphor burn-in:

Like all phosphor-based display devices and all other gas plasma displays, plasma monitors can be susceptible to phosphor burn under certain circumstances. Certain operating conditions, such as the continuous display of a static image over a prolonged period of time, can result in phosphor burn if proper precautions are not taken. To protect your investment in this plasma monitor, please adhere to the following guidelines and recommendations for minimizing the occurrence of image burn:

- * Always enable and use your computer's screen saver function during use with a computer input source.
- * Display a moving image whenever possible.
- * Change the position of the menu display from time to time.
- * Always power down the monitor when you are finished using it.

If the plasma monitor is in long term use or continuous operation take the following measures to reduce the likelihood of phosphor burn:

- * Lower the Brightness and Contrast levels as much as possible without impairing image readability.

- * Display an image with many colors and color gradations (i.e. photographic or photo-realistic images).
- * Create image content with minimal contrast between light and dark areas, for example white characters on black backgrounds. Use complementary or pastel color whenever possible.
- * Avoid displaying images with few colors and distinct, sharply defined borders between colors.

* **Note:** Burn-in is not covered by the warranty.

Contact your dealer for other recommended procedures that will best suit your particular application needs.

Recommandations importantes

Précautions

Veuillez lire avec attention ce manuel avant d'utiliser le moniteur à plasma et le conserver accessible pour s'y référer ultérieurement.



ATTENTION

RISQUE D'ELECTROCUTION
NE PAS OUVRIR



MISE EN GARDE: AFIN DE REDUIRE LES RISQUES D'ELECTROCUTION, NE PAS DEPOSER LE COUVERCLE, IL N'Y A AUCUNE PIECE UTILISABLE A L'INTERIEUR DE CET APPAREIL. NE CONFIER LES TRAVAUX D'ENTRETIEN QU'A UN PERSONNEL QUALIFIE.



Ce symbole a pour but de prévenir l'utilisateur de la présence d'une tension dangereuse, non isolée se trouvant à l'intérieur de l'appareil. Elle est d'une intensité suffisante pour constituer un risque d'électrocution. Eviter le contact avec les pièces à l'intérieur de cet appareil.



Ce symbole a pour but de prévenir l'utilisateur de la présence d'importantes instructions concernant l'entretien et le fonctionnement de cet appareil. Par conséquent, elles doivent être lues attentivement afin d'éviter des problèmes.

AVERTISSEMENT

AFIN DE REDUIRE LES RISQUES D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE. AUSSI, NE PAS UTILISER LA FICHE POLARISEE AVEC UN PROLONGATEUR OU UNE AUTRE PRISE DE COURANT SAUF SI CES LAMES PEUVENT ETRE INSEREES A FOND. NE PAS OUVRIR LE COFFRET, DES COMPOSANTS HAUTE TENSION SE TROUVENT A L'INTERIEUR. LAISSER A UN PERSONNEL QUALIFIE LE SOIN DE REPARER CET APPAREIL.

Mises en garde et précautions de sécurité

Ce moniteur à plasma a été conçu et fabriqué pour une utilisation fiable et durable. Il ne nécessite aucun entretien en dehors du nettoyage. Voir la section "Méthode de nettoyage du moniteur à plasma" plus loin. Le panneau à affichage plasma est constitué de fines particules d'images (cellules) dont plus de 99,99% sont actives. Certaines d'entre elles ne produisent pas de lumière ou restent allumées.

Pour des raisons de sécurité et pour éviter d'endommager l'appareil, lire attentivement les instructions suivantes.

Pour éviter les risques d'électrocution et d'incendie:

1. Laisser suffisamment d'espace autour de l'appareil pour la ventilation et éviter toute augmentation excessive de la température interne. Ne pas couvrir les événements ou l'installer dans un endroit trop exigü.
- Si vous installez l'appareil dans un espace clos, assurez-vous qu'il y ait suffisamment d'espace au dessus pour permettre à l'air chaud de s'élever et de s'évacuer. Si la température du moniteur devient excessive, la protection contre les surchauffes entrera en action et coupera l'alimentation. Dans ce cas, éteindre l'appareil et débrancher le câble d'alimentation. Si la température de la pièce dans laquelle se trouve le moniteur est particulièrement élevée, déplacer celui-ci dans un endroit plus frais et attendre environ 60 minutes qu'il refroidisse. Si le problème persiste, prendre contact avec votre revendeur.
2. Ne pas raccorder la prise d'alimentation polarisée de ce périphérique à une rallonge ou une prise murale si les fiches ne peuvent pas être complètement insérées.
3. Ne pas exposer à l'eau ou à l'humidité.
4. Eviter d'endommager le cordon d'alimentation, et ne pas modifier le cordon d'alimentation.
5. Débrancher le câble d'alimentation électrique pendant les orages ou les longues périodes d'inactivité.
6. Ne pas ouvrir le coffret. Des composants de haute tension se trouvent à l'intérieur. Si l'appareil est endommagé de cette manière, la garantie devient caduque. De plus, il y a risque d'électrocution.

7. Ne pas essayer d'intervenir ou de réparer l'appareil. Le fabricant décline toute responsabilité en cas de blessure corporelle ou de dégâts matériels résultant d'une opération d'entretien quelconque effectuée par des personnes non qualifiées ou résultant de l'ouverture du couvercle arrière. S'adresser aux services après-vente autorisés.

Pour éviter des dommages et prolonger la durée de service de l'appareil:

1. N'utiliser qu'une source d'alimentation de 100-240 V 50/60 Hz CA. Le fait d'utiliser l'appareil en continu à des tensions de ligne supérieures à 100-240 Volts CA réduit sa durée de vie et risque de provoquer un incendie.
2. Manipuler l'appareil avec soin pendant son déplacement et ne pas le faire tomber.
3. Eloigner l'appareil des endroits chauds, très poussiéreux et exposés en plein soleil.
4. Éviter que des liquides et des petits objets métalliques pénètrent à l'intérieur de l'appareil. En cas d'incident de ce genre, débrancher le câble d'alimentation électrique et confier le moniteur à un service après-vente agréé.
5. Ne pas frapper ou rayer la surface de la écran plasma, car des défauts risquent de se produire sur la surface de la écran plasma.
6. Pour un montage et une installation correcte, il est fortement recommandé de faire appel à un revendeur agréé et qualifié.
7. Comme c'est le cas pour tout affichage à base de phosphore (comme un moniteur CRT, par exemple), la puissance de lumière baisse graduellement au cours de la vie du Panneau d'Affichage à Plasma.
8. Pour éviter tout risque de sulfuration, il est fortement conseillé de ne pas installer l'appareil dans un vestiaire, un bain public ou un bain de source thermale.
9. Ne pas utiliser dans un véhicule en marche car l'unité pourrait tomber ou glisser et provoquer des blessures.
10. Pour éviter l'inflammation ou les chocs électriques, ne pas placer l'unité sur la tranche, à l'envers ou avec l'écran vers le bas ou vers le haut.

Méthode de nettoyage du moniteur à plasma:

1. Nettoyer le panneau avant et le cadre en procédant à l'aide d'un chiffon doux et sec. Ne jamais utiliser de solvants du type alcool ou diluant pour le nettoyage de ces surfaces.
2. Nettoyer les prises d'aération du plasma en procédant à l'aide d'une brosse à poils doux fixée à un aspirateur.
3. Pour garantir la bonne ventilation du moniteur, nettoyer les prises d'air tous les mois. Un nettoyage plus fréquent peut s'avérer nécessaire selon les conditions environnantes dans lesquelles le moniteur à plasma est utilisé.

Pour éviter les risques de brûlage du luminophore, les mesures suivantes sont recommandées:

Comme tous les périphériques d'affichage à base luminophore et tous les autres affichages gaz plasma, les moniteurs plasma peuvent être sujets au brûlage du luminophore dans certaines circonstances. Certaines conditions d'utilisation, telles que l'affichage continu d'une image statique pour une durée prolongée, peuvent causer le brûlage du luminophore si aucune précaution n'est prise. Pour protéger votre investissement dans ce moniteur à plasma, veuillez suivre les directives et les conseils suivantes pour minimiser l'occurrence le marquage de l'écran:

- Assurez-vous de mettre en marche et d'utiliser l'économiseur d'écran chaque fois que c'est possible lorsque vous l'utilisez avec une source d'entrée d'ordinateur.
- Affichez une image en mouvement aussi souvent que possible.
- Changer la position de l'affichage de menu de temps à autre.
- Coupez toujours l'alimentation lorsque vous avez terminé d'utiliser la moniteur.

Si le moniteur est en usage continu ou longue durée, prenez les mesures suivantes afin d'éviter l'occurrence le brûlage du luminophore:

- Abaissez le niveau de l'image (contraste, luminosité) autant que possible, sans faire perdre la lisibilité de l'image.
- Affichez une image avec de nombreuses couleurs et graduations de couleur (par ex. des images photographiques ou photo-réalistes).
- Créez un contenu d'image avec un contraste minimal entre les zones sombres et les zones claires, par exemple, des caractères blancs sur un fond noir. Utilisez des couleurs complémentaires ou pastels le plus souvent possible.
- Évitez d'afficher des images avec peu de couleurs et des limites nettes et clairement définies entre les couleurs.

* **Remarque:** Le brûlage de l'écran n'est pas couvert par la garantie.

Contactez un revendeur agréé ou un revendeur de marque pour d'autres procédures qui conviendront le mieux à vos besoins particuliers.

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Contents of the Package

- ☐ Plasma monitor
- ☐ Power cord
- ☐ Remote control with two AAA Batteries
- ☐ Manuals (Model Information and Operation)
- ☐ Safety metal fittings*
- ☐ Ferrite cores, bands
- ☐ Cable clamps

* Contents will differ according to the model.

* These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws (see page 6).

Options

- Wall mount unit
- Ceiling mount unit
- Tilt mount unit
- Stand
- Attachable speakers

Installation

You can attach your optional mounts or stand to the plasma monitor in one of the following two ways:

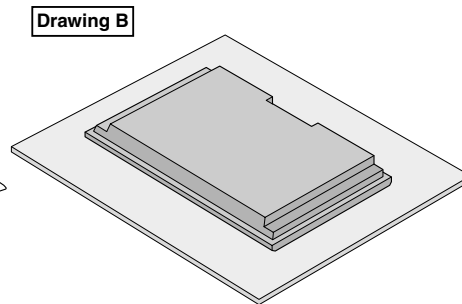
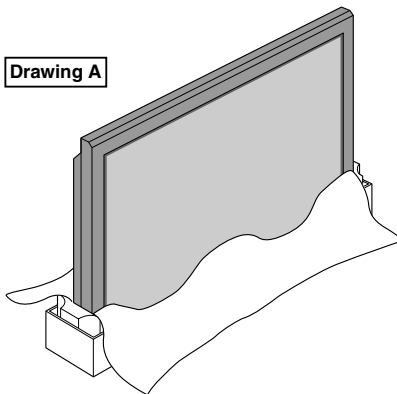
- * While it is upright. (See Drawing A)
- * As it is laid down with the screen face down (See Drawing B). Lay the protective sheet, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.
- * Do not touch or hold the screen face when carrying the unit.

- **This device cannot be installed on its own. Be sure to use a stand or original mounting unit. (Wall mount unit, Stand, etc.)**
- * See the inside of the cover page.
- **For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.**

Failure to follow correct mounting procedures could result in damage to the equipment or injury to the installer.

Product warranty does not cover damage caused by improper installation.

*** Use only the mounting kit or stand provided by manufacturer and listed under Options.**

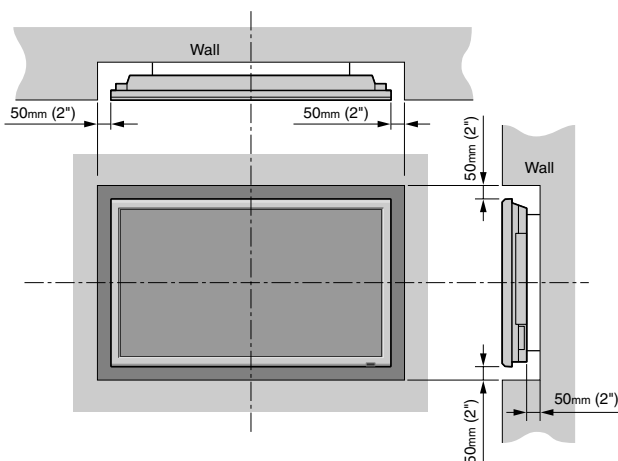


When installing or carrying, use the handles attached to the upper back of the display.



Ventilation Requirements for enclosure mounting

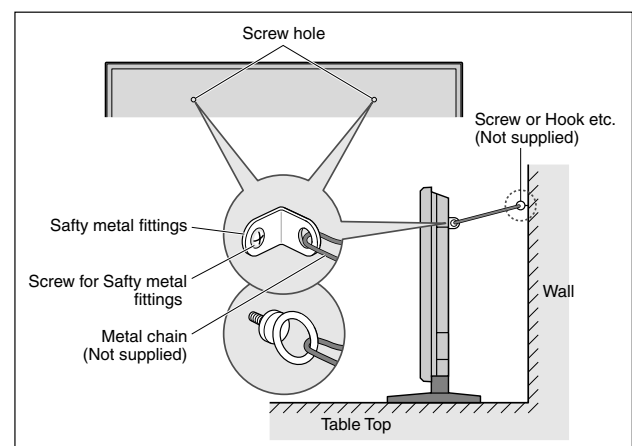
To allow heat to disperse, leave space between surrounding objects as shown on the diagram below when installing.



How to use the safety metal fittings and the screws for safety metal fittings

These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws.

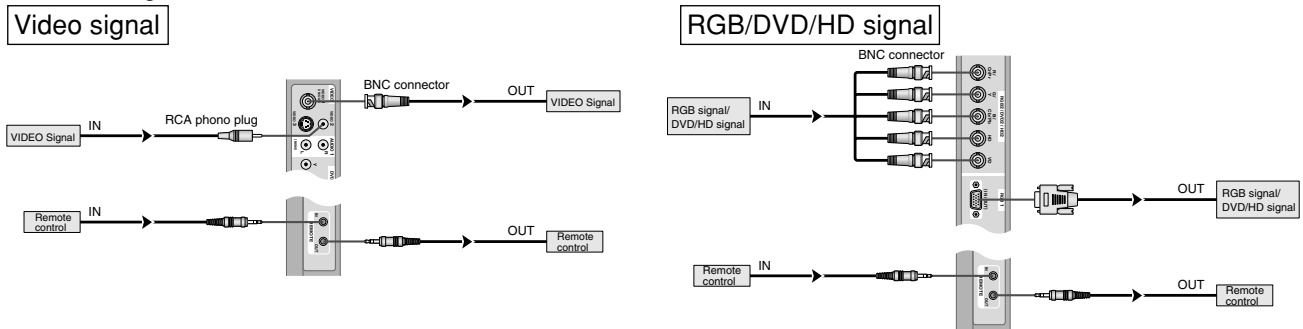
* Safety metal fittings will differ according to the model.



Creating a video wall

With built-in matrix display capability, you can create a 4-25 video wall.

- Connect signal cables and remote cables as shown below.



Note:

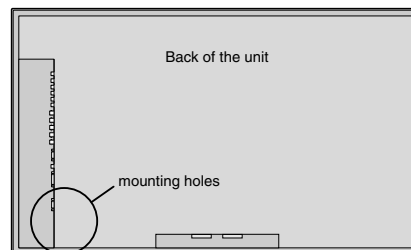
- The VIDEO1 and RGB1 terminals can be used for either INPUT or OUTPUT.
When LOOP OUT is ON, do not connect an OUTPUT signal from another unit, that will place an extraordinary load on the other unit and may damage it.
- LOOP OUT can not be turned ON while signals are input to the RGB1 terminal.
- LOOP OUT can be turned ON while signals are input to the RGB1 terminal if the POWER is switched ON.

Information

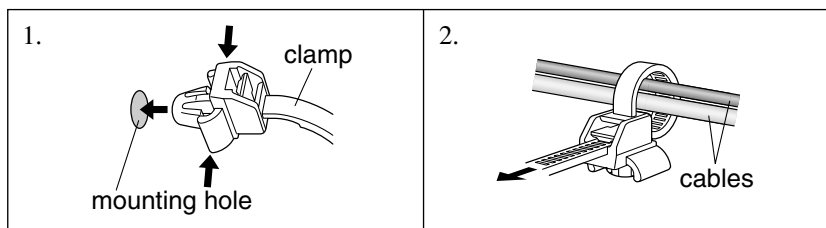
- To loop signals out to another plasma display, set the LOOP OUT to ON.
- To create a video wall, set the VIDEO WALL menu items properly.
- To connect monitors, please use a 1~2m (3.3~6.6 feet) BNC cable (any commercially available cable).
- If the image quality is poor, do not use the monitor's out terminal. Use a distribution amplifier (any commercially available distribution amplifier) to connect the split signals to the respective monitor INPUT terminals.
- Being used as a video wall function, maximally 4-screen is rough-standard with lower than 1024×768, 60Hz signal.
- A distribution amplifier is particularly recommended when using 9-screen and over video wall.
- From the second monitor onward, connections require a BNC-RCA conversion cable or connector, a mini D-Sub 15 pin cable-BNC (×5) cable or a conversion connector.

Cable Management

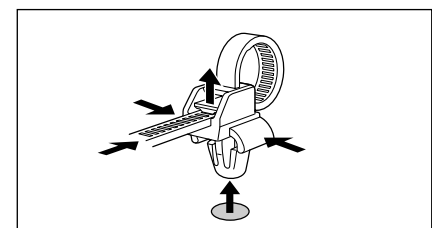
Using the cable clamps provided with the plasma display, bundle at the back of the unit the signal and audio cables connected to the display.



To attach



To detach



Caution on when the plasma monitor is installed vertically

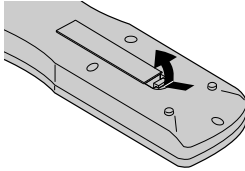
- Use the optional unit. Contact your store of purchase when installing.
- Rotate 90° clockwise as seen from the front when installing.
- After installing, check with the NEC logo mark as seen from the front.
- Be sure to set “OSM ANGLE” to “V” when using.
- * Failure to heed the above cautions may lead to malfunction.

How to use the remote control

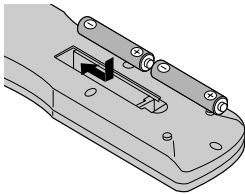
Battery Installation and Replacement

Insert the 2 “AAA” batteries, making sure to set them in with the proper polarity.

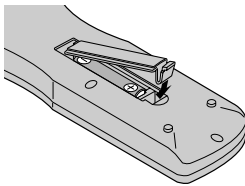
1. Press and open the cover.



2. Align the batteries according to the (+) and (–) indication inside the case.



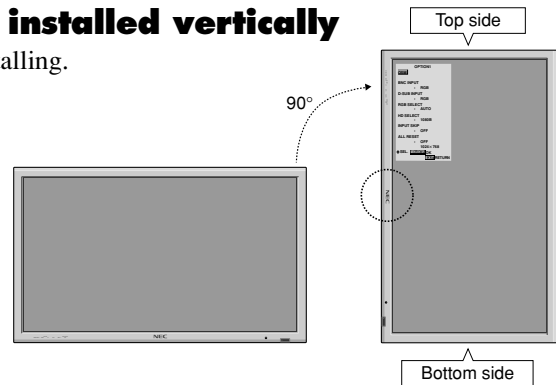
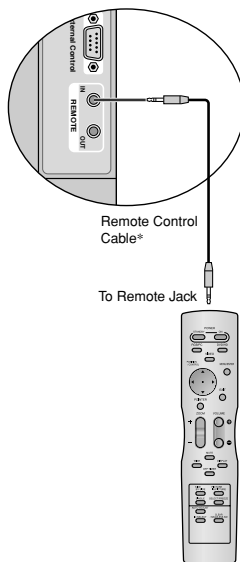
3. Replace the cover.



Using the wired remote control mode

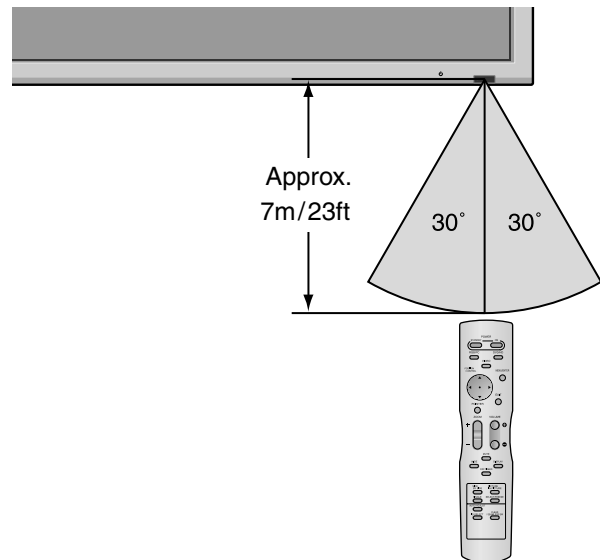
Connect the remote cable* to the remote control's remote jack and the “REMOTE IN” terminal on the monitor.

When the cable is connected, the mode automatically switches to wired remote control. When the wired remote control mode is used, the remote control can be operated even if no batteries are loaded.



Operating Range

- * Use the remote control within a distance of about 7 m/23ft. from the front of the monitor's remote control sensor and at horizontal and vertical angles of up to approximately 30°.
- * The remote control operation may not function if the monitor's remote control sensor is exposed to direct sunlight or strong artificial light, or if there is an obstacle between the sensor and the remote control.



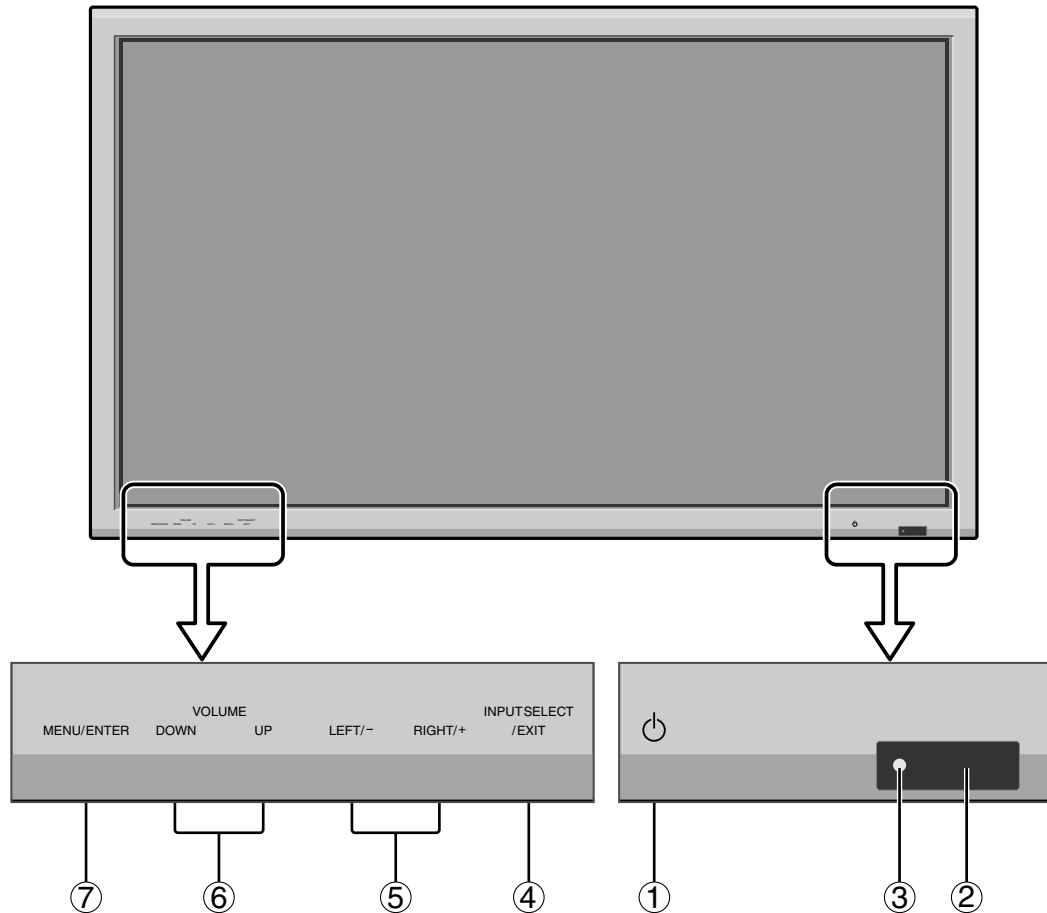
Handling the remote control

- Do not drop or mishandle the remote control.
- Do not get the remote control wet. If the remote control gets wet, wipe it dry immediately.
- Avoid heat and humidity.
- When not using the remote control for a long period, remove the batteries.
- Do not use new and old batteries together, or use different types together.
- Do not take apart the batteries, heat them, or throw them into a fire.
- When using the remote control in the wireless condition, be sure to unplug the remote cable from the REMOTE IN terminal on the monitor.

* The 1/8 Stereo Mini cable must be purchased separately.

Part Names and Function

Front View

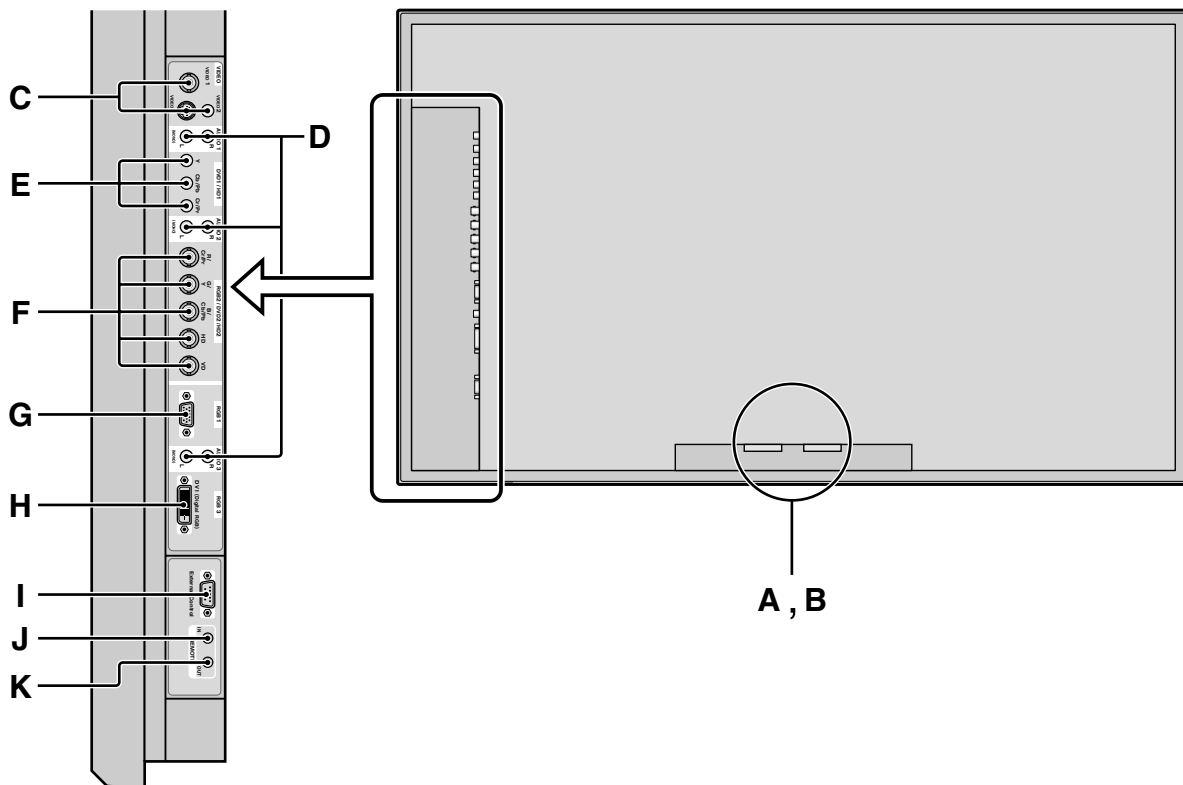


- ① **Power**
Turns the monitor's power on and off.
- ② **Remote sensor window**
Receives the signals from the remote control.
- ③ **POWER/STANDBY indicator**
When the power is on Lights green.
When the power is in the standby mode ... Lights red.
- ④ **INPUT SELECT / EXIT**
Switches the input.
The available inputs depend on the setting of "BNC INPUT", "RGB SELECT" and "DVI SET UP".
Functions as the EXIT buttons in the On-Screen Menu (OSM) mode.
- ⑤ **LEFT/- and RIGHT/+**
Enlarges or reduces the image. Functions as the CURSOR (◀/▶) buttons in the On-Screen Menu (OSM) mode.
- ⑥ **VOLUME DOWN and UP**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Menu (OSM) mode.
- ⑦ **MENU/ENTER**
Sets the On-Screen Menu (OSM) mode and displays the main menu.

WARNING

The Power on/off switch does not disconnect the plasma display completely from the supply mains.

Rear View/ Terminal Board



A AC IN

Connect the included power cord here.

B EXT SPEAKER L and R

Connect speakers (optional) here. Maintain the correct polarity. Connect the \oplus (positive) speaker wire to the \oplus EXT SPEAKER terminal and the \ominus (negative) speaker wire to the \ominus EXT SPEAKER terminal on both LEFT and RIGHT channels.

Please refer to your speaker's owner's manual.

C VIDEO1, 2, 3 (BNC, RCA, S-Video)

Connect VCR's, DVD's or Video Cameras, etc. here. VIDEO1 can be used for Input or Output (see page 7).

D AUDIO1, AUDIO2, AUDIO3

These are audio input terminals.

The input is selectable. Set which video image to allot them from the audio menu screen.

E DVD1 / HD1

Connect DVD's, High Definition or Laser Discs, etc. here.

F RGB2/ DVD2/ HD2

RGB2: You can connect an analog RGB signal and the synchronization signal.

DVD2/ HD2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.

This input can be set for use with an RGB or component source (see page 23).

G RGB1 (mini D-Sub 15pin)

Connect an analog RGB signal from a computer, etc. here. This input can be used for Input or Output. (see page 7)

H RGB3 (DVI 24pin)

Connect a digital signal (TMDS) from a source with a DVI output.

This input can be set for use with an RGB/PC3 (see page 28).

I EXTERNAL CONTROL

This terminal is used when operating and controlling the monitor externally (by external control).

J REMOTE IN

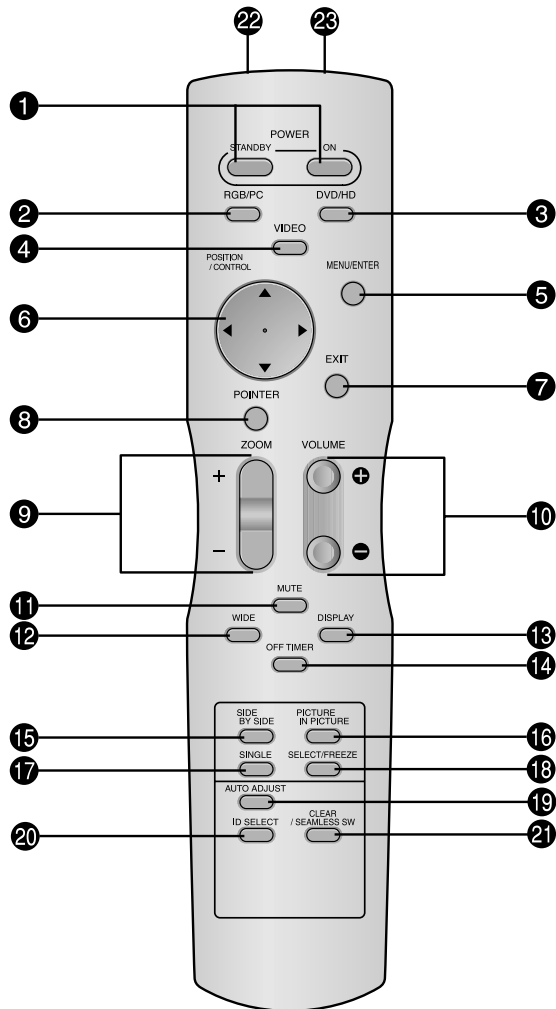
Connect the remote cable* to the remote control's remote jack to obtain wired remote control.

K REMOTE OUT

Connect the remote cable* to the REMOTE IN jack of the other display monitor to obtain wired remote control.

* The 1/8 Stereo Mini cable must be purchased separately.

Remote Control



- 1 POWER ON/STANDBY**
Switches the power on/standby.
(This does not operate when POWER/STANDBY indicator of the main unit is off.)
- 2 RGB/PC**
Press this button to select RGB/PC as the source.
RGB/PC can also be selected using the INPUT SELECT button on the monitor.
- 3 DVD / HD**
Press this button to select DVD/HD as the source.
DVD/HD can also be selected using the INPUT SELECT button on the monitor.
- 4 VIDEO**
Press this button to select VIDEO as the source.

→ VIDEO1 → VIDEO2 → VIDEO3

 VIDEO can also be selected using the INPUT SELECT button on the monitor.
- 5 MENU/ENTER**
Press this button to access the OSM controls.
Press this button during the display of the main menu to go to the sub menu.
- 6 CURSOR (▲ / ▼ / ◀ / ▶)**
Use these buttons to select items or settings and to adjust settings or switch the display patterns.

- 7 EXIT**
Press this button to exit the OSM controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.
- 8 POINTER**
Press this button to display the pointer.
- 9 ZOOM (+ / -)**
Enlarges or reduces the image.
- 10 VOLUME (+ / -)**
Adjusts the audio volume.
- 11 MUTE**
Mutes the audio.
- 12 WIDE**
Automatically detects the signal and sets the aspect ratio.
Wide button is not active for all signals.
- 13 DISPLAY**
Displays the source settings on the screen.
- 14 OFF TIMER**
Activates the off timer for the unit.
- 15 SIDE BY SIDE**
Press this button to show a couple of pictures in the side-by-side mode.
- 16 PICTURE IN PICTURE**
Press this button to show a couple of pictures in the picture-in-picture mode.
- 17 SINGLE**
Cancels the split screen mode.
- 18 SELECT/FREZE**
Press this button to select the active picture in a split screen mode.
When the PIC FREEZE function is operating, this button can be used to display still images on the sub screen.
- 19 AUTO ADJUST**
Press this button to adjust Fine Picture, Picture ADJ, Position, and Contrast automatically, or to switch the screen size to ZOOM mode automatically with the superimposed caption displayed fully only when the picture contains dark areas above and below the picture.
- 20 ID SELECT**
Set the ID number in the remote control. The remote control can then be used only for a display with the same ID number. When several displays are used together they can be controlled individually.
- 21 CLEAR/SEAMLESS SW**
Clears the number set by the ID SELECT button.
When the SEAMLESS SW function is operating, this button can be used to switch the input source quickly.
- 22 Remote control signal transmitter**
Transmits the remote control signals.
- 23 Remote Jack**
Insert the plug of the remote cable (The 1/8 Stereo Mini cable) here when using the supplied remote control in the wired condition.

Basic Operations

POWER

To turn the unit ON and OFF:

1. Plug the power cord into an active AC power outlet.
2. Press the Power button (on the unit).
The monitor's POWER/STANDBY indicator turns red and the standby mode is set.
3. Press the POWER ON button (on the remote control) to turn on the unit.
The monitor's POWER/STANDBY indicator will light up (green) when the unit is on.
4. Press the POWER STANDBY button (on the remote control) or the Power button (on the unit) to turn off the unit.
The monitor's POWER/STANDBY indicator turns red and the standby mode is set (only when turning off the unit with the remote control).

VOLUME

To adjust the sound volume:

1. Press and hold the VOLUME ⊕ button (on the remote control or the unit) to increase to the desired level.
2. Press and hold the VOLUME ⊖ button (on the remote control or the unit) to decrease to the desired level.

MUTE

To mute the audio:

Press the MUTE button on the remote control to cancel the sound; press again to restore.


DISPLAY

To check the settings:


1. The screen changes each time the DISPLAY button is pressed.
2. If the button is not pressed for approximately three seconds, the menu turns off.

DIGITAL ZOOM

Digital zoom specifies the picture position and enlarges the picture.

1. (Be sure ZOOM NAV is off.)
Press the POINTER button to display the pointer. ()

To change the size of the picture:

Press the ZOOM+ button and enlarge the picture.
The pointer will change to resemble a magnifying glass. ()

A press of the ZOOM- button will reduce the picture and return it to its original size.

To change the picture position:

Select the position with the ▲▼◀▶ buttons.

2. Press the POINTER button to delete the pointer.

AUTO ADJUST

To adjust the size or quality of the picture automatically:

Press the AUTO ADJUST button.

Information

■ AUTO ADJUST ON setting

When RGB (still picture) input is selected:
Fine Picture, Picture ADJ, Position, and Contrast will be adjusted automatically.

When RGB (motion picture), VIDEO, or Y/Pb/Pr (component) input is selected:

The screen size switches to ZOOM mode automatically with the superimposed caption displayed fully only when the picture contains dark areas above and below the picture.

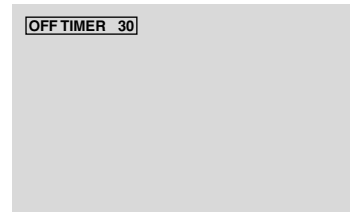
OFF TIMER

To set the off timer:

The off timer can be set to turn the power off after 30, 60, 90 or 120 minutes.

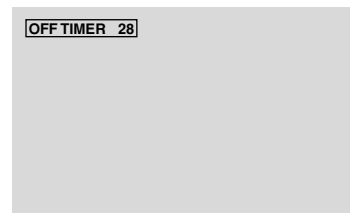
1. Press the OFF TIMER button to start the timer at 30 minutes.
2. Press the OFF TIMER button to the desired time.
3. The timer starts when the menu turns off.

→ 30 → 60 → 90 → 120 → 0



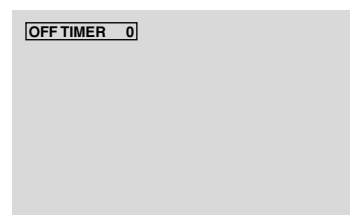
To check the remaining time:

1. Once the off timer has been set, press the OFF TIMER button once.
2. The remaining time is displayed, then turns off after a few seconds.
3. When five minutes remain the remaining time appears until it reaches zero.



To cancel the off timer:

1. Press the OFF TIMER button twice in a row.
2. The off timer is canceled.



Note:

*After the power is turned off with the off timer ...
A slight current is still supplied to the monitor. When you are leaving the room or do not plan to use the system for a long period of time, turn off the power of the monitor.*

WIDE Operations

Wide Screen Operation (manual)

With this function, you can select one of six screen sizes.

When viewing videos or digital video discs

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

The screen size switches as follows:

→ **NORMAL** → **FULL** → **STADIUM** → **ZOOM** → **2.35:1** → **14:9**

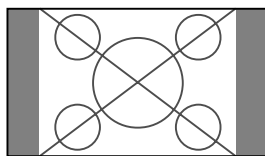
When a 720P or 1080I signal is input:

FULL ↔ **2.35:1**

When displaying enhanced split screen:

NORMAL ↔ **FULL**

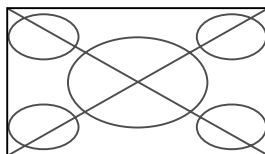
NORMAL size screen (4:3)



The normal size screen is displayed.

- * The picture has the same size as video pictures with a 4 : 3 aspect ratio.

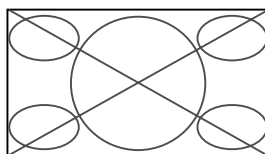
FULL size screen



The image is expanded in the horizontal direction.

- * Images compressed in the horizontal direction ("squeezed images") are expanded in the horizontal direction and displayed on the entire screen with correct linearity. (Normal images are expanded in the horizontal direction.)

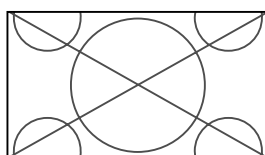
STADIUM size screen



The picture is expanded in the horizontal and vertical directions at different ratios.

- * Use this for watching normal video programs (4:3) with a wide screen.

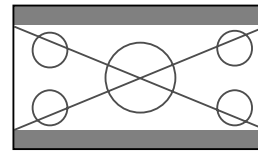
ZOOM size screen



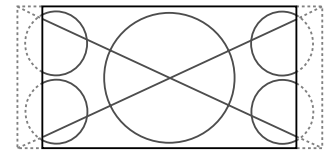
The picture is expanded in the horizontal and vertical direction, maintaining the original proportions.

- * Use this for theater size (wide) movies, etc.

2.35:1 size screen



Original image



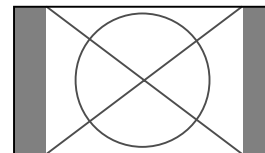
Information is lost on both sides.

The squeezed film image is expanded to fulfill the entire screen at a ratio of 2.35:1. Black bands do not appear at the top and bottom but information is lost on the left and right margins.

- This feature is available when the input signal is video, component (480I, 480P, 576I, 576P, 720P, 1080I) or RGB (525P or 625P signal from a scan converter).

- * If black bands appear on the top and bottom in the full size screen, select the 2.35:1 size screen to avoid phosphor burn-in.

14:9 size screen



The image is displayed at a 14:9 aspect ratio.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P) or RGB (525P or 625P signal from a scan converter).

Note:

Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

Wide Screen Operation with Computer Signals

Switch to the wide screen mode to expand the 4 : 3 image to fill the entire screen.

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

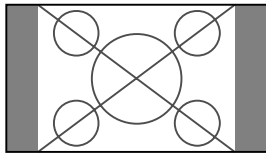
The screen size switches as follows:

→ **NORMAL** → **FULL** → **ZOOM**

When displaying enhanced split screen:

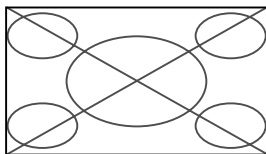
NORMAL ↔ **FULL**

NORMAL size screen (4:3 or SXGA 5:4)



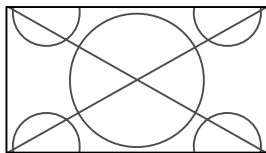
The picture has the same size as the normal computer image.

FULL size screen



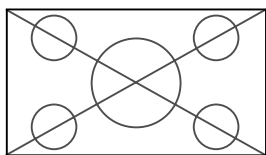
The image is expanded in the horizontal direction.

ZOOM size screen



When wide signals are input.

FULL size screen



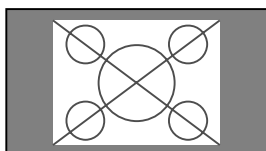
When “PICTURE SIZE” is set to “OFF”

* This cannot be set in some models. “TRUE size” will not be displayed in such cases.

The screen size switches as follows:

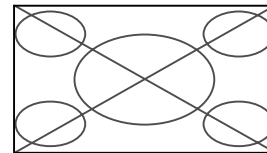
→ **TRUE** → **FULL** → **ZOOM**

TRUE size screen (VGA, SVGA 4:3)



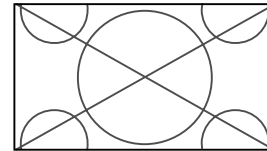
The image is true resolution.

FULL size screen



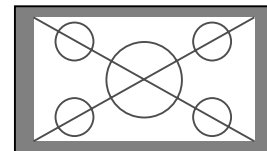
The image is expanded in the horizontal and vertical direction.

ZOOM size screen



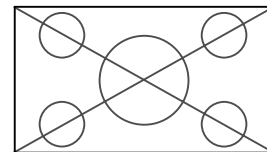
When wide signals are input.

TRUE



The image is true resolution.

FULL



Information

■ Supported resolution

See page 7 of Model Information for details on the display output of the various VESA signal standards supported by the monitor.

■ “PICTURE SIZE” setting

When the setting of “PICTURE SIZE” is OFF, the size of RGB-input pictures will be TRUE in place of NORMAL.

■ When 852 (848) dot × 480 line wide VGA* signals with a vertical frequency of 60 Hz and horizontal frequency of 31.7 (31.0) kHz are input

Select an appropriate setting for RGB SELECT mode referring to the “Table of Signals Supported” on page 7 of Model Information.

* “VGA”, “SVGA” and “SXGA” are registered trademarks of IBM, Inc. of the United States.

Note:

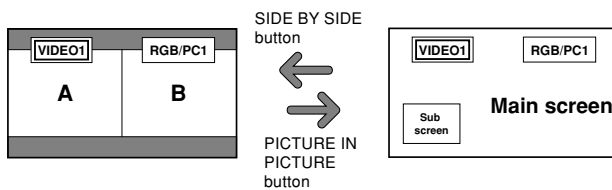
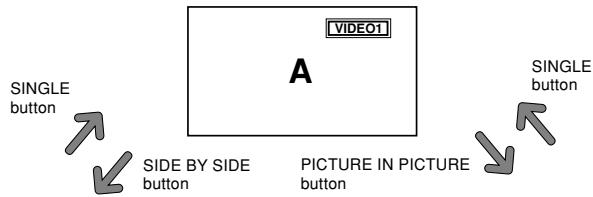
Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

SPLIT SCREEN Operations

Showing a couple of pictures on the screen at the same time

* An RGB-input picture may not be displayed in these modes, depending on the input signal specifications.

1. Press the button to select a screen mode from among single mode, side-by-side, and picture-in-picture.



Note:

Picture A and B on the above screen are not always of the same height.

Information

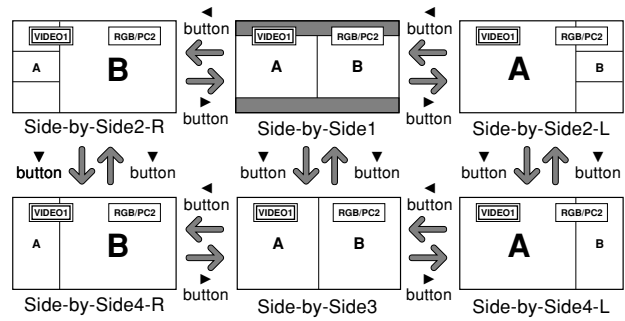
Split screen operations may not function depending on the combination of input signals. In the table below, "○" means Yes, "×" means No.

		Pictures displayed on the right/main screen (Select1)						
		VIDEO1	VIDEO2	VIDEO3	HD/DVD1	HD/DVD2	RGB/PC1	RGB3
Pictures displayed on the left/sub screen (Select2)	VIDEO1	×	×	×	○	○	○	○
	VIDEO2	×	×	×	○	○	○	○
	VIDEO3	×	×	×	○	○	○	○
	HD/DVD1	○	○	○	×	○	○	○
	HD/DVD2	○	○	○	○	×	○	○
	RGB2	○	○	○	○	○	×	○
	RGB/PC1	○	○	○	○	○	×	○
	RGB3	○	○	○	○	○	○	×

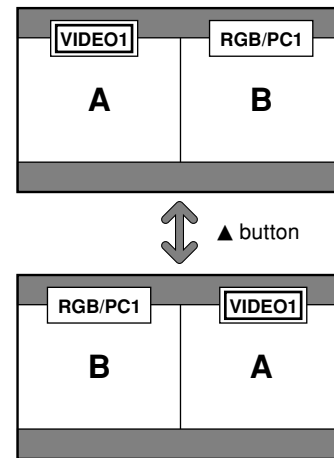
■ Split screen operations may not function depending on the type of the RGB signals.

Operations in the Side-by-side mode

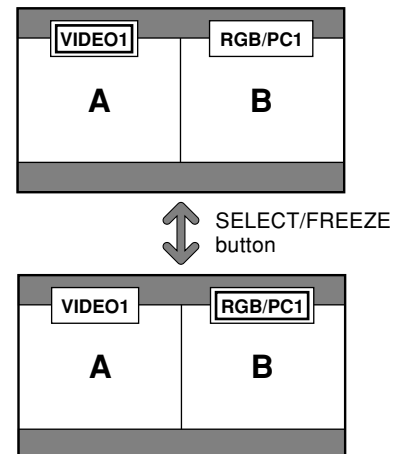
To change the picture size, press the cursor ◀▶ or ▼ button.



To swap the picture on the right and the left, press the cursor ▲ button.

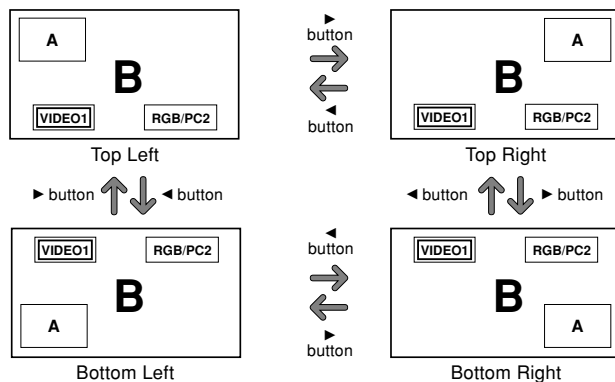


To make the desired picture active, press the SELECT/FREEZE button.

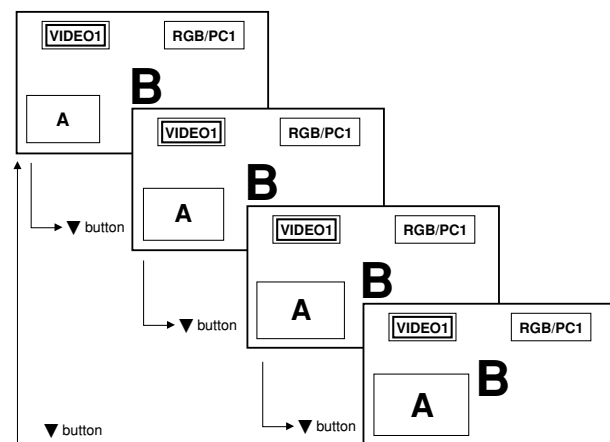


Operations in the Picture-in-picture mode

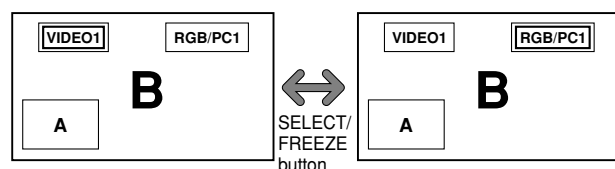
To move the position of the sub screen, press the cursor ◀ or ▶ button.



To change the size of the sub screen, press the ▼ button.



To make the desired picture active, press the SELECT/FREEZE button.



Selecting the input signals to be displayed

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Press the RGB/PC, VIDEO, or DVD/HD button. Each press of the button changes the selection of the input signal. The INPUT SELECT button on the monitor can also be used to change the selection.

Zooming up pictures

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Use the POINTER button and the ZOOM + / - button to enlarge the picture. For details, see "DIGITAL ZOOM" on page 12.

Adjusting the OSM controls

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Press the MENU/ENTER button to display the MAIN MENU.
3. Adjust the setting to your preference. For details, see "OSM (On Screen Menu) Controls" on page 17.

Note:

During enhanced split screen, some functions of OSM controls are not available.

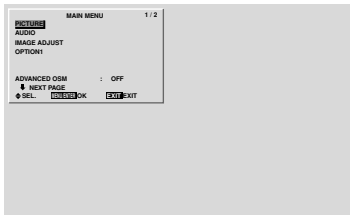
OSM (On Screen Menu) Controls

Menu Operations

The OSM window is displayed with respect to the screen as shown on the diagram.

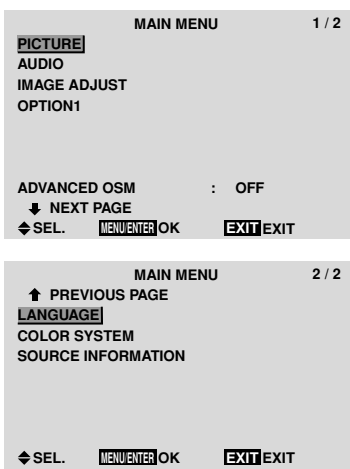
- * Depending on the screen's mode, the OSM may be displayed differently.

In the explanation, the OSM section is shown close up.

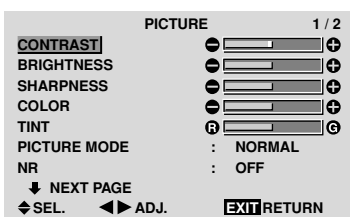


The following describes how to use the menus and the selected items.

1. Press the MENU/ENTER button on the remote control to display the MAIN MENU.



2. Press the cursor buttons ▲ ▼ on the remote control to highlight the menu you wish to enter.
3. Press the MENU/ENTER button on the remote control to select a sub menu or item.



4. Adjust the level or change the setting of the selected item by using the cursor buttons ◀ ▶ on the remote control.
5. The adjustments or the settings that are stored in memory. The change is stored until you change it again.
6. Repeat steps 2 – 5 to adjust an additional item, or press the EXIT button on the remote control to return to the main menu.

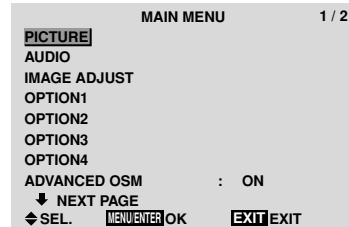
- * When adjusting using the bar at the bottom of the screen, press the ◀ or ▶ button within 5 seconds. If not, the current setting is set and the previous screen appears.

Note: The main menu disappears by pressing the EXIT button.

Information

■ Advanced menu mode


When “ADVANCED OSM” is set to “ON” in the main menu (1/2), full menu items will be shown.



Menu Tree

 : Shaded areas indicate the default value.

— ◀ → + : Press the ◀ or ▶ button to adjust. The default value is at the center.

 : Menu items in a ruled box are available when the ADVANCED OSM is set to ON.

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
PICTURE	CONTRAST	— ◀ → + (0–72)			YES	20
	BRIGHTNESS	— ◀ → + (0–64)			YES	20
	SHARPNESS	— ◀ → + (0–32)			YES	20
	COLOR	— ◀ → + (0–64)			YES	20
	TINT	R ◀ → G (0–64)			YES	20
	PICTURE MODE	BRIGHT/NORMAL/THEAT.1/THEAT.2/DEFAULT			YES	20
	NR	OFF/NR-1/NR-2/NR-3			YES	20
	COLOR TEMP	LOW/MID LOW/MID/HIGH			YES	20
	WHITE BALANCE	GAIN RED	— ◀ → + (0–70)		YES	21
		GAIN GREEN	— ◀ → + (0–70)		YES	21
		GAIN BLUE	— ◀ → + (0–70)		YES	21
		BIAS RED	— ◀ → + (0–70)		YES	21
		BIAS GREEN	— ◀ → + (0–70)		YES	21
		BIAS BLUE	— ◀ → + (0–70)		YES	21
		RESET	OFF ◀ → ON		YES	21
	GAMMA	1 ◀ → 2 ◀ → 3 ◀ → 4			YES	21
	LOW TONE	AUTO ◀ → 1 ◀ → 2 ◀ → 3			YES	21
	COLOR TUNE	RED	Y ◀ → M (0–64)		YES	21
		GREEN	C ◀ → Y (0–64)		YES	21
		BLUE	M ◀ → C (0–64)		YES	21
		YELLOW	G ◀ → R (0–64)		YES	21
		MAGENTA	R ◀ → B (0–64)		YES	21
		CYAN	B ◀ → G (0–64)		YES	21
		RESET	OFF ◀ → ON		YES	21

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
AUDIO	BASS	— ◀ → + (0–26)			YES	22
	TREBLE	— ◀ → + (0–26)			YES	22
	BALANCE	L ◀ → R (–22–+22)			YES	22
	AUDIO INPUT1	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	22
	AUDIO INPUT2	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	22
	AUDIO INPUT3	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	22

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
IMAGE ADJUST	ASPECT MODE	NORMAL/FULL/STADIUM/ZOOM/2.35:1/14:9			—	22
	V-POSITION	— ◀ → + (–64–+64)			YES	22
	H-POSITION	— ◀ → + (–128–+127)			YES	22
	V-HEIGHT	— ◀ → + (0–64)			YES	22
	H-WIDTH	— ◀ → + (0–64)			YES	22
	AUTO PICTURE	OFF ◀ → ON*2			NO	22
	FINE PICTURE*1	— ◀ → + *2 (0–64)			YES	22
	PICTURE ADJ.*1	— ◀ → + *2 (0–128)			YES	22

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION1	OSM	DISPLAY OSM	OFF ◀ → ON		YES	23
		OSM ADJ.	1 ◀ → 6		YES	23
		OSM ANGLE	H ◀ → V		YES	23
		OSM ORBITER	OFF ◀ → ON		YES	23
		OSM CONTRAST	LOW ◀ → NORMAL		YES	23
		BNC INPUT	RGB ◀ → COMP.		YES	23
	D-SUB INPUT	RGB			—	23
	RGB SELECT	AUTO/STILL/MOTION/WIDE1/WIDE2/WIDE3/DTV			YES	23
	HD SELECT	1080B/1035I/1080A			NO	24
	INPUT SKIP	OFF ◀ → ON			YES	24
	ALL RESET	OFF ◀ → ON			—	24

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION2	PWR. MGT.	OFF↔ON			YES	25
	CINEMA MODE	OFF↔ON			YES	25
	LONG LIFE	PLE	AUTO/LOCK 1/LOCK 2/LOCK 3		YES	25
		ORBITER	AUTO 1		YES	26
			AUTO 2		YES	26
			MANUAL	H-DOT/V-LINE/TIME	YES	26
			OFF		YES	26
	INVERSE	OFF			YES	26
		ON		WORKING TIME/WAITING TIME	YES	26
		WHITE			YES	26
	SCREEN WIPER	OFF			YES	27
		ON		WORKING TIME/WAITING TIME/SPEED	YES	27
	SOFT FOCUS	OFF/1/2/3/4			YES	27
	GRAY LEVEL	0←→3←→15			YES	27
	S1/S2	AUTO↔OFF			YES	28
	PICTURE SIZE	OFF↔ON			YES	28
	DVI SET UP	PLUG/PLAY	PC↔STB/DVD		NO	28
		BLACK LEVEL	LOW↔HIGH		NO	28
	CLOSECAPTION	OFF↔CC1~4↔TEXT1~4			YES	28
	CAPTION CONT	LOW↔NORMAL			YES	28

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION3	TIMER	PRESENT TIME	DAYLIGHT SAVING TIME	OFF↔ON	NO	29
			DAY/HOUR/MINUTES		NO	29
		PROGRAM	OFF		YES	29
			ON	DATE/ON/OFF(HOUR, MINUTE)/INPUT/FUNCTION	YES	29
		MULTI REPEAT	OFF		YES	30
			ON	MULTI MODE/WORK TIME/INPUT MODE	YES	30
	PWR. ON MODE	LAST /MULTI/ VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	30
	CONTROL LOCK	OFF↔ON			YES	30
	IR REMOTE	OFF↔ON			YES	31
	LOOP OUT	OFF↔ON			YES	31
	ID NUMBER	ALL↔1←→256			YES	31
	VIDEO WALL	DIVIDER	OFF/1/4/9		YES	32
		POSITION	No.1←→No.4/No.7←→No.15/No.16←→No.31/No.32←→No.56		—	32
		DISP. MODE	SPLIT↔BLANK		YES	32
		AUTO ID	OFF↔ON		YES	32
		IMAGE ADJUST	ASPECT MODE	NORMAL/FULL/STADIUM/ZOOM/2.35:1/14:9	—	33
			V-POSITION	←→+ (-64→64)	YES	33
			H-POSITION	←→+ (-128→127)	YES	33
			V-HEIGHT	←→+ (0-64)	YES	33
			H-WIDTH	←→+ (0-64)	YES	33
			AUTO PICTURE	OFF↔ON*2	NO	33
			FINE PICTURE*1	←→+ *2 (0-64)	YES	33
			PICTURE ADJ.*1	←→+ *2 (0-128)	YES	33
		P. ON DELAY	OFF/ON/MODE1/MODE2		YES	33
		PLE LINK	OFF↔ON		YES	33
		REPEAT TIMER	OFF		YES	34
			ON	DIVIDER/SOURCE/WORK TIME	YES	34

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION4	SUB. P DETECT	OFF↔AUTO			YES	34
	ZOOM NAV	OFF↔S BY S↔BTM LFT↔BTM RGT↔TOP RGT↔TOP LFT			YES	34
	PICT FREEZE	OFF↔S BY S1↔S BY S2↔BTM LFT↔BTM RGT↔TOP RGT↔TOP LFT			YES	35
	SEAMLESS SW	OFF			YES	35
		ON	SELECT1/SELECT2		YES	35

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
ADVANCED OSM	OFF↔ON				YES	36
LANGUAGE	ENGLISH/DEUTSCH/FRANÇAIS/ESPAÑOL/ITALIANO/SVENSKA/中文/РУССКИЙ				NO	36
COLOR SYSTEM	AUTO/3.58NTSC/4.43 NTSC/PAL/PAL 60/PAL-N/PAL-M/SECAM				NO	36
SOURCE INFORMATION	—				—	36

*1 Only when AUTO PICTURE is OFF

*2 RGB/PC only

Information

■ Restoring the factory default settings

Select “ALL RESET” under the OPTION1 menu. Note that this also restores other settings to the factory defaults.

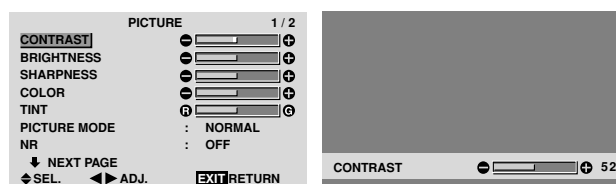
Picture Settings Menu

Adjusting the picture

The contrast, brightness, sharpness, color and tint can be adjusted as desired.

Example: Adjusting the contrast

On “CONTRAST” of “PICTURE” menu, adjust the contrast.



Note: If “CAN NOT ADJUST” appears ...
When trying to enter the PICTURE submenu, make sure PICTURE MODE is not set to DEFAULT.

Information

Picture adjustment screen

CONTRAST: Changes the picture’s white level.

BRIGHTNESS: Changes the picture’s black level.

SHARPNESS: Changes the picture’s sharpness.

Adjusts picture detail of VIDEO display.

COLOR: Changes the color density.

TINT: Changes the picture’s tint. Adjust for natural colored skin, background, etc.

Adjusting the computer image

Only the contrast and brightness can be adjusted when a computer signal is connected.

Restoring the factory default settings

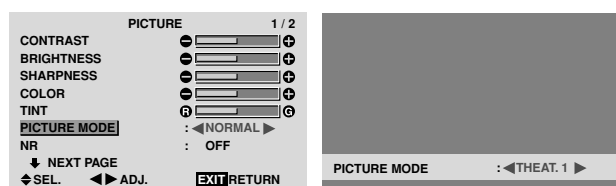
Select “DEFAULT” under the “PICTURE MODE” settings.

Setting the picture mode according to the brightness of the room

There are four picture modes that can be used effectively according to the environment in which you are viewing the display.

Example: Setting the “THEAT. 1” mode

On “PICTURE MODE” of “PICTURE” menu, select “THEAT. 1”.



Information

Types of picture modes

THEAT. 1, 2: Set this mode when watching video in a dark room.

This mode provides darker, finer pictures, like the screen in movie theaters.

For a darker image, select THEAT. 2.

NORMAL: Set this mode when watching video in a bright room.

This mode provides dynamic pictures with distinct differences between light and dark sections.

BRIGHT: This mode provides brighter pictures than NORMAL.

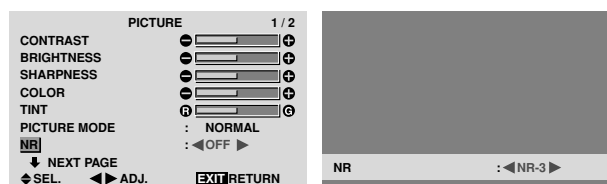
DEFAULT: Use this to reset the picture to the factory default settings.

Reducing noise in the picture

Use these settings if the picture has noise due to poor reception or when playing video tapes on which the picture quality is poor.

Example: Setting “NR-3”

On “NR” of “PICTURE” menu, select “NR-3”.



Information

NR

* “NR” stands for Noise Reduction.

* This function reduces noise in the picture.

Types of noise reduction

There are three types of noise reduction. Each has a different level of noise reduction.

The effect becomes stronger as the number increases (in the order NR-1 → NR-2 → NR-3).

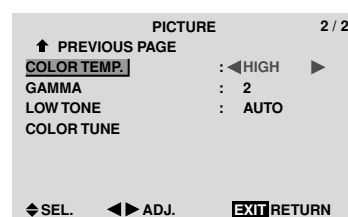
OFF: Turns the noise reduction function off.

Setting the color temperature

Use this procedure to set color tone produced by the plasma display.

Example: Setting “HIGH”

On “COLOR TEMP.” of “PICTURE” menu, select “HIGH”.



Information

Setting the color temperature

LOW: Redder

MID LOW: Slightly red

MID: Standard (slightly bluer)

HIGH: Bluer

Adjusting the color to the desired level

Use this procedure to adjust the white balance for each color temperature to achieve the desired color quality.

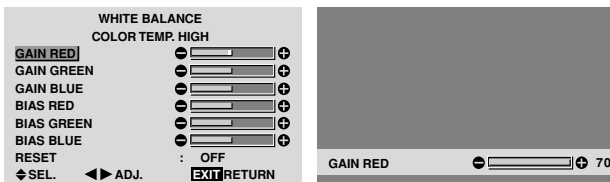
Example: Adjusting the “GAIN RED” of “HIGH” color temperature

Set “ADVANCED OSM” to “ON” in the main menu (1/2), then perform the following operations.

On “COLOR TEMP.” of “PICTURE” menu, select “HIGH”, then press the MENU/ENTER button.

The “WHITE BALANCE” screen appears.

On “GAIN RED”, adjust the white balance.



Information

■ Adjusting the white balance

GAIN R/G/B: White balance adjustment for white level

BIAS R/G/B: White balance adjustment for black level

RESET: Resets settings to the factory default values.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

■ Restoring the factory default settings

Select “RESET” under the WHITE BALANCE menu.

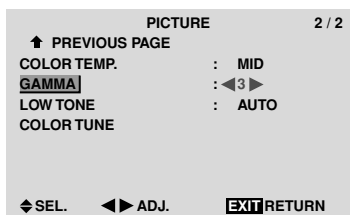
Changing the Gamma Curve

This feature adjusts the brightness of the midtone areas while keeping shadows and highlights unchanged.

Example: Setting “3”

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “GAMMA” of “PICTURE” menu, select “3”.



Information

■ GAMMA settings

The picture becomes darker as the number increases (in the sequence of 1, 2, 3, 4).

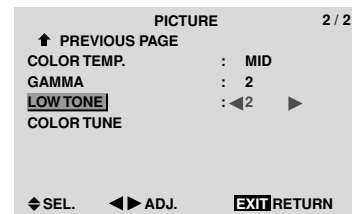
Making the Low Tone adjustments

This feature allows more detailed tone to be reproduced especially in the dark area.

Example: Setting “2”

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “LOW TONE” of “PICTURE” menu, select “2”.



Information

■ LOW TONE settings

AUTO: Will automatically appraise the picture and make adjustments.

1: Will apply the dither method suitable for still pictures.

2: Will apply the dither method suitable for motion pictures.

3: Will apply the error diffusion method.

Adjusting the colors

Use this procedure to adjust hue and color density for red, green, blue, yellow, magenta and cyan.

You can accentuate the green color of trees, the blue of the sky, etc.

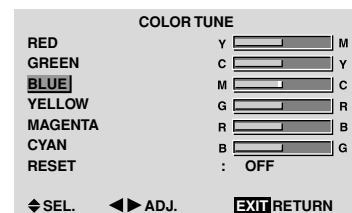
Example: Adjusting the color tune for blue

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “PICTURE” menu, select “COLOR TUNE”, then press the MENU/ENTER button.

The “COLOR TUNE” screen appears.

On “BLUE” of “COLOR TUNE”, adjust the color tune.



Information

■ COLOR TUNE settings

RED: Makes red's adjustment

GREEN: Makes green's adjustment

BLUE: Makes blue's adjustment

YELLOW: Makes yellow's adjustment

MAGENTA: Makes magenta's adjustment

CYAN: Makes cyan's adjustment

RESET: Resets settings to the factory default value.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

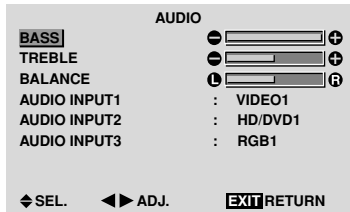
Audio Settings Menu

Adjusting the treble, bass and left/right balance and audio input select

The treble, bass and left/right balance can be adjusted to suit your tastes.

Example: Adjusting the bass

On “BASS” of “AUDIO” menu, adjust the bass.



Note : If “CAN NOT ADJUST” appears...
Set “AUDIO INPUT” on the AUDIO menu correctly.

Information

■ Audio settings menu

BASS: Controls the level of low frequency sound.
TREBLE: Controls the level of high frequency sound.
BALANCE: Controls the balance of the left and right channels.

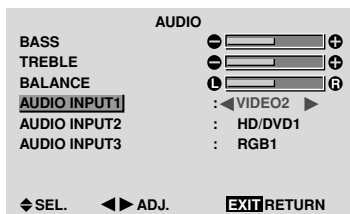
Setting the allocation of the audio connectors

Setting the AUDIO 1, 2, and 3 connectors to the desired input.

Example: Setting “AUDIO INPUT1” to “VIDEO 2”

On “AUDIO INPUT1” of “AUDIO” menu, select “VIDEO2”.

The available sources depend on the settings of input.



Information

■ AUDIO INPUT

A single audio input cannot be selected as the audio channel for more than one input terminal.

Image Adjust Settings Menu

Adjusting the Position, Size, Fine Picture, Picture Adj

The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position in the normal mode

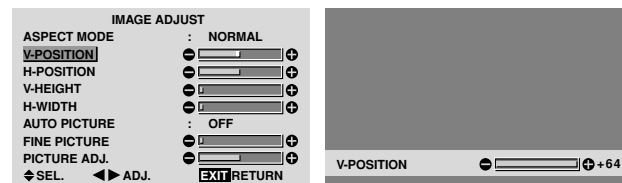
On “V-POSITION” of “IMAGE ADJUST” menu, adjust the position.

The mode switches as follows each time the ◀ or ▶ button is pressed:

NORMAL ↔ FULL

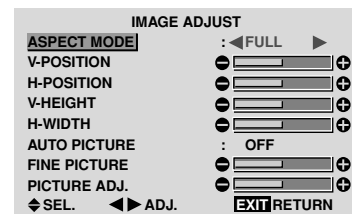
* The mode can also be switched by pressing the WIDE button on the remote control.

* The settings on the IMAGE ADJUST menu are not preset at the factory.



Information

■ When “AUTO PICTURE” is “OFF”



When Auto Picture is off, the Fine Picture and the Picture ADJ. items are displayed so that you can adjust them.

■ Adjusting the Auto Picture

ON: The Picture ADJ., Fine Picture and Position adjustments are made automatically.

Not available for digital ZOOM.

OFF: The Picture ADJ., Fine Picture and Position adjustments are made manually.

* If FINE PICTURE can't be adjusted, set Auto Picture to OFF and adjust manually.

■ Adjusting the position of the image

V-POSITION: Adjusts the vertical position of the image.

H-POSITION: Adjusts the horizontal position of the image.

V-HEIGHT: Adjusts the vertical size of the image. (Except for STADIUM mode)

H-WIDTH: Adjusts the horizontal size of the image. (Except for STADIUM mode)

FINE PICTURE*: Adjusts for flickering.

PICTURE ADJ.*: Adjusts for striped patterns on the image.

* The Picture ADJ. and Fine Picture features are available only when the “Auto Picture” is off.

* The AUTO PICTURE, FINE PICTURE and PICTURE ADJ. are available only for RGB signals.

But, these features are not available for moving pictures on VIDEO, HD/DVD or RGB.

Option1 Settings Menu

Setting the on-screen menu

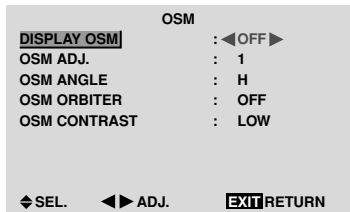
This sets the position of the menu, the display format (horizontal or vertical) etc.

Example: Turning the DISPLAY OSM off

On "OPTION1" menu, select "OSM", then press the MENU/ENTER button.

The "OSM" menu appears.

On "DISPLAY OSM" of "OSM" menu, select "OFF".



Information

■ DISPLAY OSM settings

ON: The on-screen menu appears.

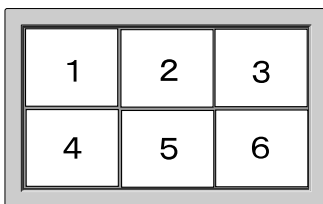
OFF: The on-screen menu does not appear.

If you press the DISPLAY button on the remote control for more than 3 seconds the main menu will appear and can be set (although it is not ON).

■ OSM ADJUST settings

Adjusts the position of the menu when it appears on the screen.

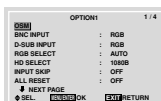
The position can be set between 1 to 6.



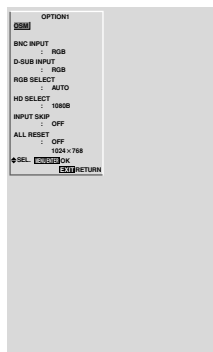
■ OSM ANGLE settings

Sets the display format (landscape "H" or portrait "V"). When the unit is installed vertically set the OSM ANGLE at "V".

"H"



"V"



■ OSM ORBITER settings

ON: The position of the menu will be shifted by eight dots each time OSM is displayed.

OFF: OSM will be displayed at the same position.

■ OSM CONTRAST settings

NORMAL: OSM brightness is set to normal.

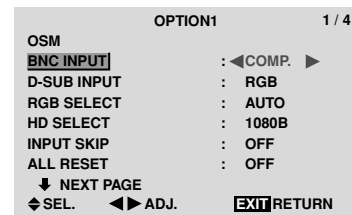
LOW: OSM brightness is set to lower.

Setting the BNC connectors

Select whether to set the input of the 5 BNC connectors to RGB and component.

Example: Set the BNC INPUT mode to "COMP."

On "BNC INPUT" of "OPTION1" menu, select "COMP".



Information

■ BNC INPUT Settings

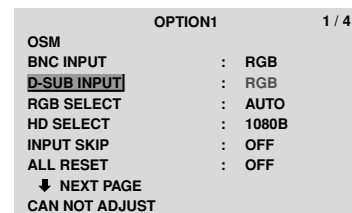
RGB: Use the 5BNC terminals for RGB input.

COMP.: Use the 3BNC terminals for component input.

Checking the signal being transmitted to RGB1 terminal

Use this to confirm the signal being transmitted to the RGB1 terminal.

It is set to RGB and can not be adjusted.

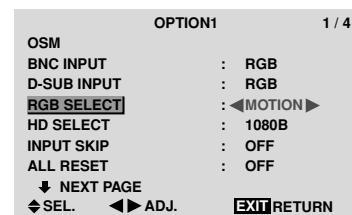


Setting a computer image to the correct RGB select screen

With the computer image, select the RGB Select mode for a moving image such as (video) mode, wide mode or digital broadcast.

Example: Setting the "RGB SELECT" mode to "MOTION"

On "RGB SELECT" of "OPTION1" menu, select "MOTION".



Information

■ RGB SELECT modes

One of these 6 modes must be selected in order to display the following signals correctly.

AUTO: Select the suitable mode for the specifications of input signals as listed in the table "Computer input signals supported by this system" on page 7 of Model Information.

STILL: To display VESA standard signals. (Use this mode for a still image from a computer.)

MOTION: The video signal (from a scan converter) will be converted to RGB signals to make the picture more easily viewable. (Use this mode for a motion image from a computer.)

WIDE1: When an 852 dot × 480 line signal with a horizontal frequency of 31.7kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE1.

WIDE2: When an 848 dot × 480 line signal with a horizontal frequency of 31.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE2.

WIDE3: When an 1920 dot × 1200 line signal with a horizontal frequency of 74.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE3.

DTV: Set this mode when watching digital broadcasting (480P).

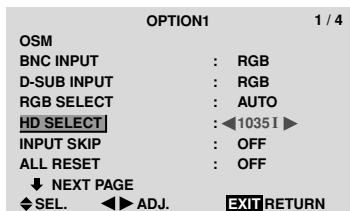
See page 7 of Model Information for the details of the above settings.

Setting high definition images to the suitable screen size

Use this procedure to set whether the number of vertical lines of the input high definition image is 1035 or 1080.

Example: Setting the “1080B” mode to “1035I”

On “HD SELECT” of “OPTION1” menu, select “1035I”.



Information

■ HD SELECT modes

These 3 modes are not displayed in correct image automatically.

1080B: Standard digital broadcasts

1035I: Japanese “High Vision” signal format

1080A: Special Digital broadcasts (for example : DTC100)

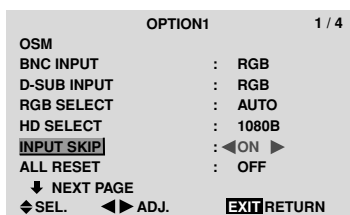
Setting the Input Skip

When this is ON, signals which are not present will be skipped over and only pictures whose signals are being transmitted will be displayed.

This setting is valid only for the INPUT SELECT button on the unit.

Example: Set to “ON”

On “INPUT SKIP” of “OPTION1” menu, select “ON”.



Information

■ INPUT SKIP settings

OFF: Regardless of the presence of the signal, scan and display all signals.

ON: If no input signal is present, skip that signal.

* “SETTING NOW” will appear during the input search.

Resetting to the default values

Use these operations to restore all the settings (PICTURE, AUDIO, IMAGE ADJUST, OPTION1~4, etc) to the factory default values.

Refer to page 18 for items to be reset.

On “ALL RESET” of “OPTION1” menu, select “ON”, then press the MENU/ENTER button.



When the “SETTING NOW” screen disappears, then all the settings are restored to the default values.

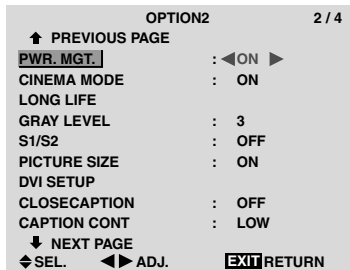
Option2 Settings Menu

Setting the power management for computer images

This energy-saving (power management) function automatically reduces the monitor's power consumption if no operation is performed for a certain amount of time.

Example: Turning the power management function on
Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PWR. MGT." of "OPTION2" menu, select "ON".



Information

■ Power management function

- * The power management function automatically reduces the monitor's power consumption if the computer's keyboard or mouse is not operated for a certain amount of time. This function can be used when using the monitor with a computer.
- * If the computer's power is not turned on or if the computer and selector tuner are not properly connected, the system is set to the off state.
- * For instructions on using the computer's power management function, refer to the computer's operating instructions.

■ Power management settings

ON: In this mode the power management function is turned on.

OFF: In this mode the power management function is turned off.

■ Power management function and POWER/STANDBY indicator

The POWER/STANDBY indicator indicates the status of the power management function. See below for indicator status and description.

POWER/STANDBY indicator

Power management mode	POWER/STANDBY indicator	Power management operating status	Description	Turning the picture back on
On	Green	Not activated.	Horizontal and vertical synchronizing signals are present from the computer.	Picture already on.
Off	Red	Activated.	Horizontal and/or vertical synchronizing signals are not sent from the computer.	Operate the keyboard or mouse. The picture reappears.

Setting the picture to suit the movie

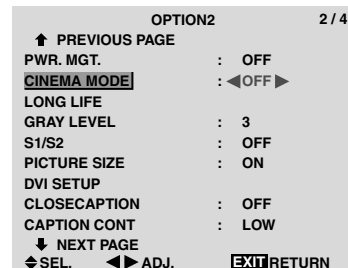
The film image is automatically discriminated and projected in an image mode suited to the picture.

[NTSC, PAL, PAL60, 480I (60Hz), 525I (60Hz), 576I (50Hz), 625I (50Hz), 1035I (60Hz), 1080I (60Hz) only]

Example: Setting the "CINEMA MODE" to "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "CINEMA MODE" of "OPTION2" menu, select "OFF".



Information

■ CINEMA MODE

ON: Automatic discrimination of the image and projection in cinema mode.

OFF: Cinema mode does not function.

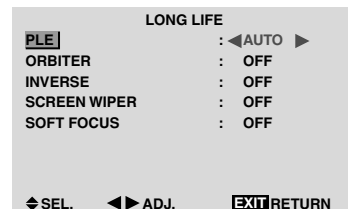
Reducing burn-in of the screen

The brightness of the screen, the position of the picture, positive/negative mode and screen wiper are adjusted to reduce burn-in of the screen.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION2" menu, select "LONG LIFE", then press the MENU/ENTER button.

The "LONG LIFE" screen appears.



PLE (Peak Luminance Enhancement)

Use this to activate the brightness limiter.

Example: Setting "PLE" to "LOCK1"

On "PLE" of "LONG LIFE" menu, select "LOCK1".



Information

■ PLE settings

AUTO: The brightness of the screen is adjusted automatically to suit the picture quality.

LOCK1, 2, 3: Sets maximum brightness.

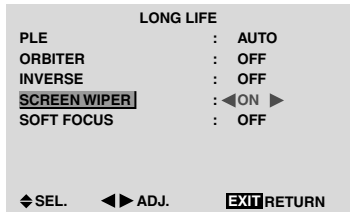
The brightness level decreases in the order of LOCK 1, 2, 3. LOCK 3 provides minimum brightness.

SCREEN WIPER

When this is set to ON, a white vertical bar moves repeatedly from the left and of the screen to the right end at a constant speed.

Example: Setting "SCREEN WIPER" to "ON"

On "SCREEN WIPER" of "LONG LIFE" menu, select "ON".



Information

■ SCREEN WIPER

ON: The white vertical bar appears.

You can set the time by pressing the MENU/ENTER button while "ON" is set.

OFF: Screen wiper mode does not function.

Setting the time for SCREEN WIPER

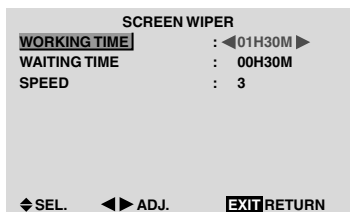
Set a time duration and the speed.

Example: Setting so that the SCREEN WIPER mode starts in 30 minutes and proceeds for one and a half hours.

On "SCREEN WIPER" of "LONG LIFE" menu, select "ON", then press the MENU/ENTER button.

THE "SCREEN WIPER" screen appears.

Adjust the times and speed.



Information

■ Setting the time

WORKING TIME: Set the time duration for "SCREEN WIPER".

When the WORKING TIME is set to "ON" the mode will stay on.

WAITING TIME: Set the standby time until the "SCREEN WIPER" mode starts.

SPEED: Set the moving speed for the "SCREEN WIPER". The speed decreases as the number increases.

* The "WAITING TIME" can not be set when the "WORKING TIME" is ON.

* THE "WORKING TIME" and "WAITING TIME" can be set for up to 12 hours and 45 minutes in units of 3 minutes.

■ To select "ON" for the "WORKING TIME"...

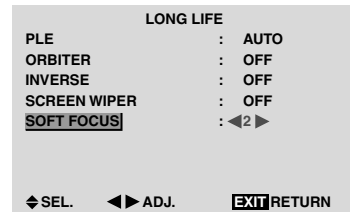
Set the hours of the working time to 0H and the minutes to 0M. "ON" will be displayed.

SOFT FOCUS

Reduces edges and softens the image.

Example: Setting "SOFT FOCUS" to "2"

On "SOFT FOCUS" of "LONG LIFE" menu, select "2".



Information

■ SOFT FOCUS settings

OFF: Turns the SOFT FOCUS function off.

1, 2, 3, 4: Activates the SOFT FOCUS setting. The higher numbers create a softer image.

"SHARPNESS" can not be adjusted in the "PICTURE" menu.

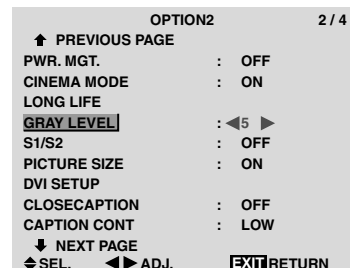
Setting the gray level for the sides of the screen

Use this procedure to set the gray level for the parts on the screen on which nothing is displayed when the screen is set to the 4:3 size.

Example: Setting "GRAY LEVEL" to "5"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "GRAY LEVEL" of "OPTION2" menu, select "5".



Information

■ GRAY LEVEL settings

This adjusts the brightness of the black (the gray level) for the sides of the screen.

The standard is 0 (black). The level can be adjusted from 0 to 15. The factory setting is 3 (dark gray).

Setting the screen size for S1/S2 video input

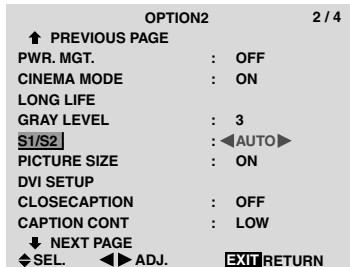
If the S-video signal contains screen size information, the image will be automatically adjusted to fit the screen when this S1/S2 is set to AUTO.

This feature is available only when an S-video signal is input via the VIDEO3 terminal.

Example: Setting "S1/S2" to "AUTO"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "S1/S2" of "OPTION2" menu, select "AUTO".



Information

■ S1/S2 settings

AUTO: Adjusts the screen size automatically according to the S1/S2 video signal.

OFF: Turns the S1/S2 function off.

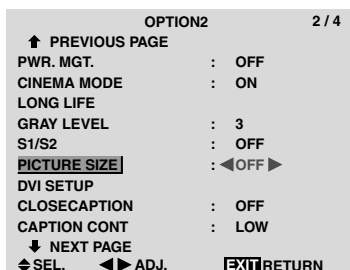
Setting the picture size for RGB input signals

Use this procedure to switch the setting to "ON" or "OFF".

Example: Setting the "PICTURE SIZE" mode to "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PICTURE SIZE" of "OPTION2" menu, select "OFF".



Setting the signal and black level for DVI signal

Choose the signal for the DVI connector (PC or STB/DVD) and set the black level.

Example: Setting the "PLUG/PLAY" mode to "STB/DVD"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION2" menu, select "DVI SET UP", then press the MENU/ENTER button.

The "DVI SET UP" screen appears.

On "PLUG/PLAY" of "DVI SET UP" menu, select "STB/DVD".



Information

■ PLUG/PLAY settings

PC: When connected to the PC signal.

BLACK LEVEL is set to "LOW" automatically.

STB/DVD: When connected to the SET TOP BOX, DVD etc.

BLACK LEVEL is set to "HIGH" automatically.

■ BLACK LEVEL settings

LOW: When connected to the PC signal.

HIGH: When connected to the SET TOP BOX, DVD etc.

Change "HIGH" into "LOW" if the black level appears gray.

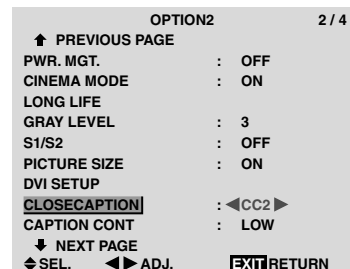
Setting CloseCaption

Choose the closed caption mode that allows text to be superimposed on display.

Example: Setting "CLOSECAPTION" to "CC2"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "CLOSECAPTION" of "OPTION2" menu, select "CC2".



Information

■ CLOSECAPTION settings

OFF: This exits the closed caption mode.

CC1~4: Text is superimposed.

TEXT1~4: Text is displayed in full screen.

A closed caption signal may not be decoded in the following signature;

1. when a video tape has been dubbed.
2. when the signal reception is weak.
3. when the signal reception is nonstandard.

When using closed captioned channel or the text mode, the text screen always appears.

When there is no signal, however, the text screen will not display text characters.

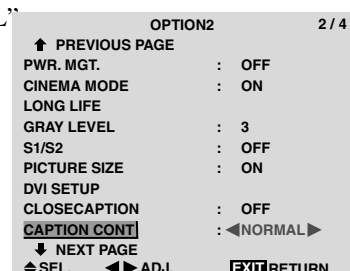
Setting the contrast of CloseCaption

Choose the brightness of the closed caption.

Example: Setting "CAPTION CONT" to "NORMAL"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "CAPTION CONT" of "OPTION2" menu, select "NORMAL".



Information

■ CAPTION CONT settings

NORMAL: Closed Caption brightness is set to normal.

LOW: Closed Caption brightness is set to lower.

- Use the ▲ and ▼ buttons to select “MULTI MODE”, then use the ◀ and ▶ buttons to choose from “SINGLE”, “SIDE BY SIDE1~3” and “PICTURE IN PICTURE (BOTTOM LEFT~TOP LEFT)”.
- Use the ▲ and ▼ buttons to select “MAIN”/ “SUB” and “LEFT”/ “RIGHT”, then use the ◀ and ▶ buttons to choose from “VIDEO1~3”, “HD/DVD1~2” and “RGB1~3”.

PROGRAM TIMER				
DATE	ON	OFF	INPUT	FUNCTION
MON	08:30	10:30	MULTI	INVERSE
TUE	--:--	18:15	—	—
SAT	08:30	12:15	VIDEO1	WHITE
*FRI	08:30	10:00	HD/DVD1	—
—	--:--	--:--	—	—
SAT	08:30	12:15	VIDEO1	WHITE
*	15:30	16:00	RGB1	—
◆SEL. ZOOM ADJ. EXIT RETURN				

PICTURE IN PICTURE

PROGRAM TIMER	
MULTI SCREEN SETTING	
MULTI MODE	
: BOTTOM LEFT	
INPUT MODE	
MAIN	: RGB/PC1
SUB	: VIDEO1
◆SEL. ◀ADJ. EXIT RETURN	

SIDE BY SIDE

PROGRAM TIMER	
MULTI SCREEN SETTING	
MULTI MODE	
: SIDE BY SIDE1	
INPUT MODE	
LEFT	: RGB/PC1
RIGHT	: VIDEO1
◆SEL. ◀ADJ. EXIT RETURN	

MULTI REPEAT

Two repeat timers are available.

Each timer has MULTI MODE, WORK TIME and INPUT MODE functions.

Example:

TIMER1 is set to display RGB1 (MAIN) and VIDEO1 (SUB) for 4 hours in picture-in-picture mode.

TIMER2 is set to display RGB3 (LEFT) and HD/DVD1 (RIGHT) for 2.5 hours in side-by-side mode.

On “MULTI REPEAT” of “TIMER”, select “ON”, then press the MENU/ENTER button.

The “MULTI REPEAT TIMER” screen appears.

Adjust the items.

TIMER	
PRESENT TIME	: OFF
PROGRAM	: OFF
MULTI REPEAT	: ◀OFF▶
◆SEL. ◀ADJ. EXIT RETURN	

MULTI REPEAT TIMER	
1 MULTI MODE	: ◀BTM LFT▶
WORK TIME	: 04H00M
INPUT MODE	
MAIN	: RGB/PC1
SUB	: VIDEO1
2 MULTI MODE	: S BY S1
WORK TIME	: 02H30M
INPUT MODE	
LEFT	: RGB/PC3
RIGHT	: HD/DVD1
◆SEL. ◀ADJ. EXIT RETURN	

Information

■ MULTI REPEAT settings

MULTI MODE: Set the input mode to be displayed while the timer is on.

WORK TIME: Set the time duration of the display. Time range is from 1 minutes to 4 hours and 15 minutes.

INPUT MODE: Set the signal that will be displayed within the selected screen.

Select “MAIN” or “SUB” for “PICTURE IN PICTURE (BTM LFT~TOP LFT)” and “LEFT” or “RIGHT” for “S BY S1~3”. Only one signal is selected for “SINGLE”.

* The two repeat timers run consecutively, i.e., Timer1–Timer2–Timer1–Timer2.

* When both PROGRAM TIMER and MULTI REPEAT TIMER are set, priority is given to PROGRAM TIMER.

Setting the power on mode

This function sets the input mode at the time the power is switched on.

Example: Setting “VIDEO2”

Set “ADVANCED OSM” to “ON” in the main menu (1/2), then perform the following operations.

On “PWR. ON MODE” of “OPTION3” menu, select “VIDEO2”.

The available inputs depend on the setting of input.

OPTION3	
3 / 4	
↑ PREVIOUS PAGE	
TIMER	
PWR. ON MODE	: ◀VIDEO2▶
CONTROL LOCK	: OFF
IR REMOTE	: ON
LOOP OUT	: OFF
ID NUMBER	: ALL
VIDEO WALL	
↓ NEXT PAGE	
◆SEL. ◀ADJ. EXIT RETURN	

Information

■ PWR. ON MODE settings

LAST: Last mode (the input that was last selected at the time the power was switched off).

VIDEO1, 2, 3: VIDEO input mode.

RGB1, 2, 3: RGB input mode.

HD/DVD1, 2: HD/DVD input mode.

MULTI: Multi screen mode.

Follow the procedure used for PROGRAM TIMER. See page 29.

Enabling/disabling the front panel controls

This function enables/disables the front panel controls.

Example: Setting “ON”

Set “ADVANCED OSM” to “ON” in the main menu (1/2), then perform the following operations.

On “CONTROL LOCK” of “OPTION3” menu, select “ON”, then press the MENU/ENTER button.

OPTION3	
3 / 4	
↑ PREVIOUS PAGE	
TIMER	
PWR. ON MODE	: LAST
CONTROL LOCK	: ◀ON▶
IR REMOTE	: ON
LOOP OUT	: OFF
ID NUMBER	: ALL
VIDEO WALL	
↓ NEXT PAGE	
◆SEL. ◀ADJ. EXIT RETURN	

Information

■ CONTROL LOCK settings

ON: Disables the buttons on the front panel.

OFF: Enables the buttons on the front panel.

* Even when the CONTROL LOCK is set, the POWER switch will not be locked.

* This becomes effective when the on-screen menu goes out.

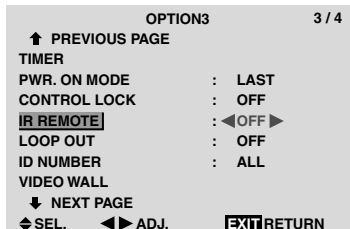
Enabling/disabling remote control wireless transmission

This function enables/disables remote control wireless transmission.

Example: Setting "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "IR REMOTE" of "OPTION3" menu, select "OFF", then press the MENU/ENTER button.



Information

■ IR REMOTE settings

ON: Enables remote control wireless transmission.

OFF: Disables remote control wireless transmission.

Set "OFF" to avoid unwanted control from other remote controls.

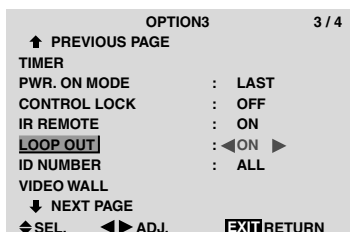
Loop Out setting

When this feature is set to ON, the received signal will be looped out.

Example: Setting "ON"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "LOOP OUT" of "OPTION3" menu, select "ON".



Information

■ LOOP OUT settings

ON: The received signal will be looped out via PC1 terminal or VIDEO1 terminal.

OFF: The received signal will not loop out.

* Even if LOOP OUT is ON, signals won't be sent out if POWER is being turned off.

■ To connect another display...

See page 7.

■ If the RGB/PC1 signal is present at the time the power switched on...

The RGB/PC1 input will be displayed regardless of the setting of LOOP OUT.

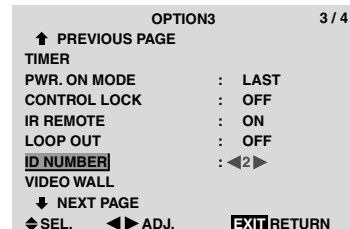
ID number setting

When using more than one of these displays, this function sets ID numbers so that operation of the remote control does not cause multiple monitors to operate at the same time.

Example: Setting "2"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "ID NUMBER" of "OPTION3" menu, select "2".



* To reset back to ALL

Press the CLEAR/SEAMLESS SW button.

Information

■ ID NUMBER settings

ALL: ID NUMBER will not be set.

1 to 256: ID NUMBER will be set.

■ When the ID NUMBER have been set

You can also set ID NUMBER for each remote control to operate the plasma display individually. To do so, see below.

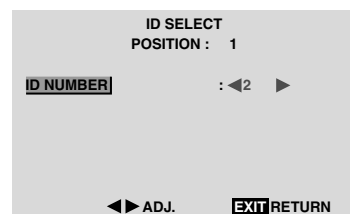
To set the ID number for the remote control

Example: Setting "2"

Press the ID SELECT button on the remote control.

The "ID SELECT" screen appears.

On "ID NUMBER" of "ID SELECT" menu, select "2".



* To reset back to ALL

Press the CLEAR/SEAMLESS SW button.

Video Wall setting

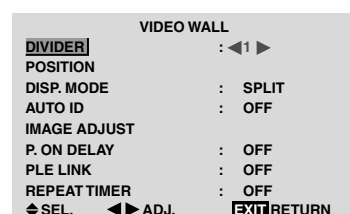
When creating a video wall, use a distribution amplifier (any commercially available distribution amplifier) to connect the split signals to the respective monitor INPUT terminals.

Use this feature to configure a 4-25 video wall.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION3" menu, select "VIDEO WALL", then press the MENU/ENTER button.

The "VIDEO WALL" screen appears.



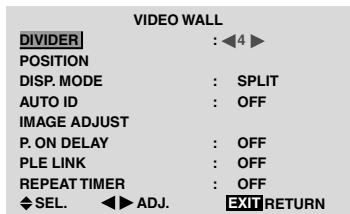
Note: A contingency method of shutting off the electric power should be used in cases of emergency during video wall setup.

DIVIDER

Set the 4-25 video wall.

Example: Setting "4"

On "DIVIDER" of "VIDEO WALL" menu, select "4".



Information

■ DIVIDER settings

OFF, 1: 1 Screen (Matrix display function does not work)

4: 4 Screens (2x2 video wall)

9: 9 Screens (3x3 video wall)

16: 16 Screens (4x4 video wall)

25: 25 Screens (5x5 video wall)

* When you select 4-25, set the VIDEO WALL POSITION.

VIDEO WALL POSITION

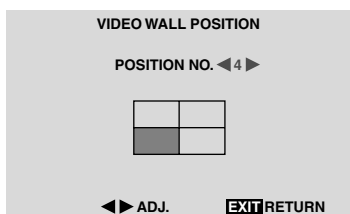
Set the position of each display.

Example: Setting "4"

On "VIDEO WALL" menu, select "POSITION", then press the MENU/ENTER button.

The "VIDEO WALL POSITION" screen appears.

Select "NO. 4" of "POSITION NO.".



Information

■ VIDEO WALL POSITION settings

1 Screen: There is no need to set POSITION.

4 Screens

NO. 1	NO. 2
NO. 4	NO. 3

9 Screens

NO. 7	NO. 8	NO. 9
NO. 10	NO. 11	NO. 12
NO. 13	NO. 14	NO. 15

16 Screens

NO. 16	NO. 17	NO. 18	NO. 19
NO. 20	NO. 21	NO. 22	NO. 23
NO. 24	NO. 25	NO. 26	NO. 27
NO. 28	NO. 29	NO. 30	NO. 31

25 Screens

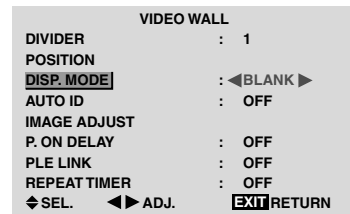
NO. 32	NO. 33	NO. 34	NO. 35	NO. 36
NO. 37	NO. 38	NO. 39	NO. 40	NO. 41
NO. 42	NO. 43	NO. 44	NO. 45	NO. 46
NO. 47	NO. 48	NO. 49	NO. 50	NO. 51
NO. 52	NO. 53	NO. 54	NO. 55	NO. 56

DISP. MODE

Select the screen mode from between two options (Splitting, Blanking).

Example: Setting "BLANK"

On "DISP. MODE" of "VIDEO WALL" menu, select "BLANK".



Information

■ DISP. MODE settings

SPLIT: Combines enlarged screens and creates multiple screens.

BLANK: Corrects misalignment of combined screen portions and creates multiple screens

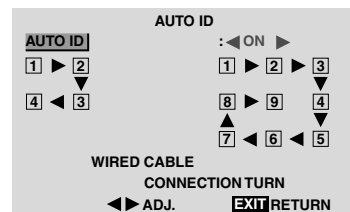
AUTO ID

This feature automatically sets the ID numbers of multiple displays connected to each other.

Example: Setting "ON"

Set the ID number for the No. 1 display on ID NUMBER menu.

On "AUTO ID" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button.

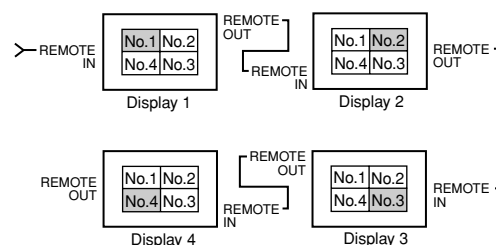


Information

■ AUTO ID settings

ON: Enables Auto ID function. In the case shown below, display 1 will be set as ID 1, display 2 as ID2, etc.

This can be set only when a 2x2 or 3x3 video wall is selected.



OFF: Disables Auto ID function.

IMAGE ADJUST

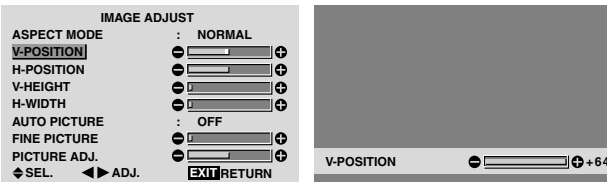
The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position

On "VIDEO WALL" menu, select "IMAGE ADJUST", then press the MENU/ENTER button.

The "IMAGE ADJUST" screen appears.

On "V-POSITION" of "IMAGE ADJUST" menu, adjust the position.



Information

■ IMAGE ADJUST settings

These are the same functions as the IMAGE ADJUST menu on page 22.

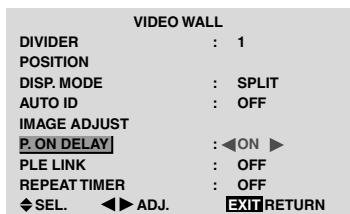
P. ON DELAY (Power on delay)

Use this function to activate power-on delay.

Turn on the AUTO ID before the following operations.

Example: Setting "ON"

On "P. ON DELAY" of "VIDEO WALL" menu, select "ON".



Information

■ P. ON DELAY settings

ON: Turns on the main power of each display after a delay time.

OFF: Turns on the main power of all displays at the same time.

(Only for 16 and 25 screens)

MODE1: Turns on the main power of each display delayed.

MODE2: Turns on the main power of each display more delayed.

* Once this function has been set to "ON", the POWER ON/OFF button on the remote control does not function except for the No.1 monitor.

By pressing the POWER ON button on the remote control the No.1 monitor will turn on and the others will be turned on one by one automatically.

* From the second monitor onward, neither the POWER button on the unit nor the POWER ON button on the remote control works. However, by pressing and holding the POWER ON button for more than 3 seconds, the monitor will be turned on.

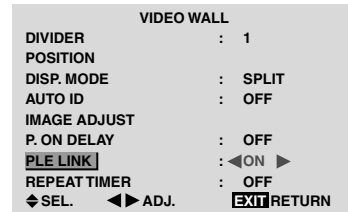
PLE LINK

Use this function to set a uniform brightness for each display.

Turn on the AUTO ID and set the DIVIDER (at 1, 4 or 9) before the following operations.

Example: Setting "ON"

On "PLE LINK" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button.



Information

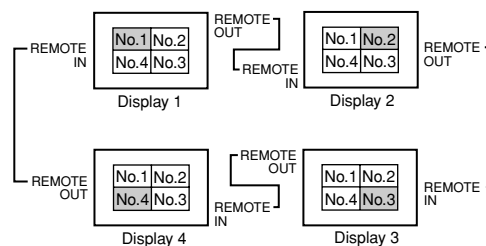
■ PLE LINK settings

ON: Sets a uniform brightness for each screen in a video wall. This can be set only when a 2x2 or 3x3 video wall is selected.

OFF: Sets the individual screen brightness for each screen in a video wall.

* When this function is set "ON", connect your plasma displays with the remote cable (optional) in the order of the position numbers for the 2x2 video wall. See the drawing below.

* If there are changes in the DIVIDER or POSITION, the PLE LINK will automatically turn OFF.



* With the 3x3 video wall, connect the final display to the first display the same way as with 2x2 video wall.

Note: The remote control can be operated unless the IR REMOTE is set to "OFF".

REPEAT TIMER

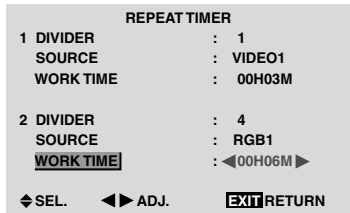
Use this to set two timers. Each timer can use the DIVIDER, SOURCE and WORK TIME functions. Turn on the AUTO ID and set the DIVIDER (at 1, 4 or 9) before the following operations.

Example:

TIMER1...VIDEO1 will be displayed for 3 minutes.
TIMER2...RGB1 will be displayed for 6 minutes in a 2×2 video wall.

On "REPEAT TIMER" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button. The "REPEAT TIMER" screen appears.

Adjust the items.



Information

■ REPEAT TIMER settings

DIVIDER: Divide the screen into 1, 4 or 9 sections.
SOURCE: Set the input mode to be displayed.
WORK TIME: Can be set to up to 4 hours 15 minutes in units of 1 minute.
If you set both timers, Timer 1 and Timer 2 run consecutively.
In the case of the Video wall, timer No.1 can be used to control all the displays simultaneously.
* This becomes effective when the on-screen menu goes out.

Option4 Settings Menu

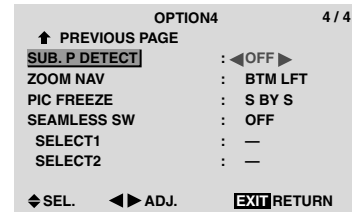
Erasing the sub screen image when there is no input signal

This function automatically erases the black frame of the sub screen when there is no sub screen input signal. This feature is available only when the picture-in-picture mode is selected.

Example: Set to "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "SUB. P DETECT" of "OPTION4" menu, select "OFF".



Information

■ SUB. P DETECT Function

- * The sub screen disappears when the input signal is lost.
- * Loss of the input signal means a condition in which the video signal and the sync signal are not present.
- * Under conditions in which the sub screen has disappeared, the ZOOM NAV, PIC FREEZE, and SEAMLESS SW functions will not work. The WIDE button will not function either.

■ SUB. P DETECT settings

AUTO: The black frame disappears 3 seconds after the input signal is lost.
OFF: Turns off the SUB. P DETECT function.

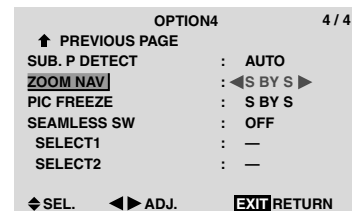
Displaying the entire image during DIGITAL ZOOM operations

Use this function to display the entire image within the sub screen together with an enlarged image on the main screen.

Example: Setting "ZOOM NAV" to "S BY S"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "ZOOM NAV" of "OPTION4" menu, select "S BY S".



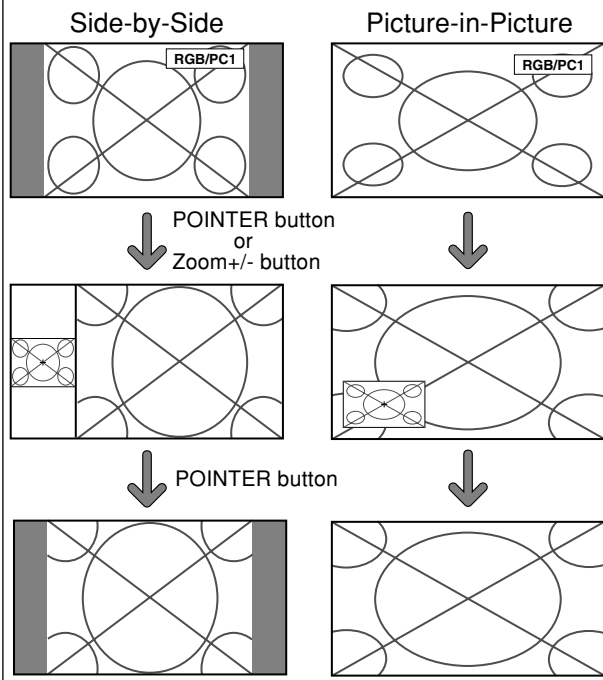
Information

■ ZOOM NAV Function

- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during multi screen mode.
- * This feature does not function while PIC FREEZE is operating.
- * Providing a 2-screen display will cancel this function.

■ ZOOM NAV settings

OFF: Will not show the entire image on the sub screen.
 S BY S: Will show the entire image on the sub screen of side-by-side mode.
 BTM LFT~TOP LFT: Will show the entire image on the sub screen of picture-in-picture mode.



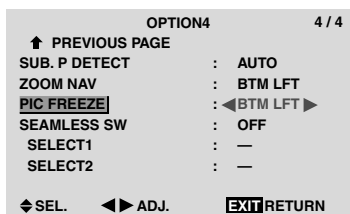
Displaying still images in the sub screen

This feature enables display in the sub screen of still images captured by pressing the SELECT/FREEZE button.

Example: Setting "PIC FREEZE" to "BTM LFT"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PIC FREEZE" of "OPTION4" menu, select "BTM LFT".



Information

■ PIC FREEZE Function

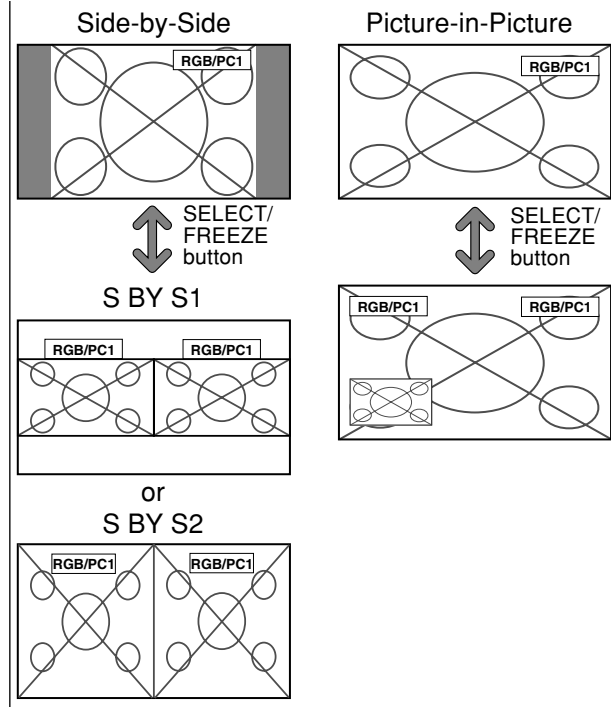
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during split screen mode.
- * Digital zoom is not available while this function is operating.
- * A further press of the SELECT/FREEZE button while this function is operating will cancel this function.
- * Providing a 2-screen display will cancel this function.

■ PIC FREEZE settings

OFF: Will not show the still image.

S BY S1, 2: The still images captured by pressing the SELECT/FREEZE button will be shown on the sub screen of side-by-side mode.

BTM LFT~TOP LFT: The still images captured by pressing the SELECT/FREEZE button will be shown on the sub screen of picture-in-picture mode.



Switching the input source quickly

This feature enables quick input selection.

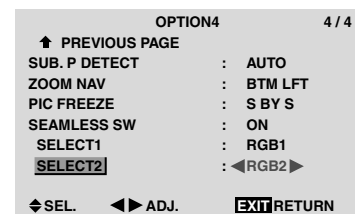
After setting ON, press the CLEAR/SEAMLESS SW button for quick switching between the two selected input signals.

Example: Set to switch quickly between RGB1 and RGB2.



Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "SEAMLESS SW" of "OPTION4" menu, select "ON".
 Select "RGB1" and "RGB2".



* The available sources depend on the setting of input.

Information

■ SEAMLESS SW Function

- * This feature will not function for certain input combinations. See the table on page 15.
- * After switching to the selected input, please operate this function.
- * This feature will not function during split screen mode.
- * When SEAMLESS SW is first turned on, or when signals being transmitted are changed, there may be a slight delay due to signal analysis.

■ SEAMLESS SW settings

OFF: Turns off the SEAMLESS SW function.

ON: When the CLEAR/SEAMLESS SW button is pressed, input signals will switch quickly according to the setting of SELECT1 and SELECT2.

Advanced OSM Settings Menu

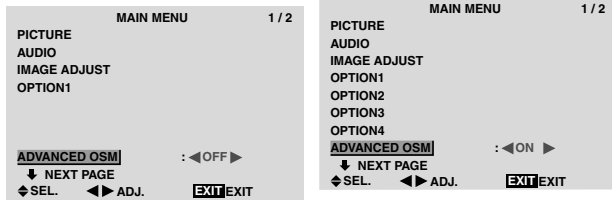
Setting the menu mode

This allows you to access full menu items.

When P. ON DELAY or PLE LINK is ON, this won't be turned OFF.

Example: Setting "ON"

On "ADVANCED OSM" of "MAIN MENU", select "ON".



Information

■ ADVANCED OSM settings

ON: All of the main menu items are available for advanced users.

OFF: Some of the main menu items are not available (e.g. OPTION2, OPTION3 and OPTION4).

Language Settings Menu

Setting the language for the menus

The menu display can be set to one of eight languages.

Example: Setting the menu display to "DEUTSCH"

On "MAIN MENU", select "LANGUAGE", then press the MENU/ENTER button.

The "LANGUAGE" screen appears.

On "LANGUAGE", select "DEUTSCH", then press the MENU/ENTER button.



The "LANGUAGE" is set to "DEUTSCH" and return to the main menu.

Information

■ Language settings

ENGLISH	English	ITALIANO	Italian
DEUTSCH	German	SVENSKA	Swedish
FRANÇAIS	French	中文	Chinese
ESPAÑOL	Spanish	РУССКИЙ	Russian

Color System Settings Menu

Setting the video signal format

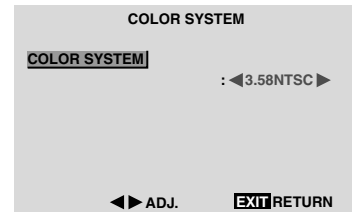
Use these operations to set the color systems of composite video signals or Y/C input signals.

Example: Setting the color system to "3.58 NTSC"

On the MAIN MENU, select "COLOR SYSTEM", then press the MENU/ENTER button.

The "COLOR SYSTEM" screen appears.

On "COLOR SYSTEM", select "3.58NTSC".



Information

■ Video signal formats

Different countries use different formats for video signals. Set to the color system used in your current country.

AUTO: The color systems are automatically identified and the format is set accordingly.

PAL: This is the standard format used mainly in the United Kingdom and Germany.

SECAM: This is the standard format used mainly in France and Russia.

4.43 NTSC, PAL60: This format is used for videos in countries using PAL and SECAM video signals.

3.58 NTSC: This is the standard format used mainly in the United States and Japan.

PAL-M: This is the standard format used mainly in Brazil.

PAL-N: This is the standard format used mainly in Argentina.

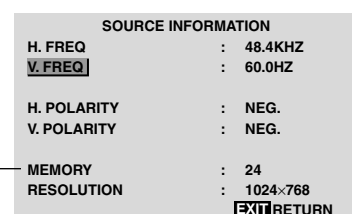
Source Information Menu

Checking the frequencies, polarities of input signals, and resolution

Use this function to check the frequencies and polarities of the signals currently being input from a computer, etc.

On "MAIN MENU", select "SOURCE INFORMATION", then press the MENU/ENTER button.

The "SOURCE INFORMATION" is displayed.



PC: MEMORY will be displayed.
Others: MODE will be displayed.

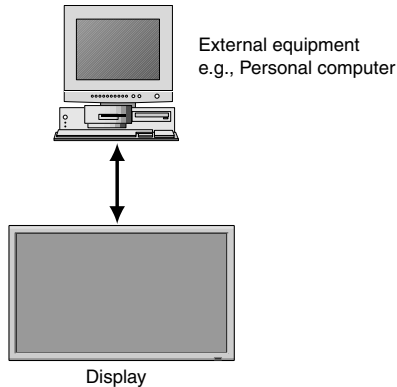
External Control Pin Assignments

Application

These specifications cover the communications control of the plasma monitor by external equipment.

Connections

Connections are made as described below.

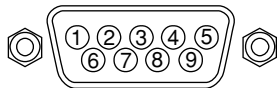


Connector on the plasma monitor side: EXTERNAL CONTROL connector.

Use a crossed (reverse) cable.

Type of connector: D-Sub 9-pin male

Pin No.	Pin Name	Pin No.	Pin Name
1	No Connection	6	DSR (DCE side ready)
2	RXD (Receive data)	7	RTS (Ready to send)
3	TXD (Transmit data)	8	CTS (Clear to send)
4	DTR (DTE side ready)	9	No connection
5	GND		



Communication Parameters

- | | |
|--------------------------|--------------|
| (1) Communication system | Asynchronous |
| (2) Interface | RS-232C |
| (3) Baud rate | 9600 bps |
| (4) Data length | 8 bits |
| (5) Parity | Odd |
| (6) Stop bit | 1 bit |
| (7) Communication code | Hex |

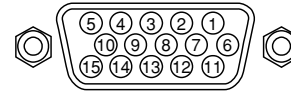
External Control Codes (Reference)

FUNCTION		CODE DATA							
Power ON		9FH	80H	60H	4EH	00H	CDH		
OFF		9FH	80H	60H	4FH	00H	CEH		
Input Switch	Video1 (BNC)	DFH	80H	60H	47H	01H	01H	08H	
	Video2 (RCA)	DFH	80H	60H	47H	01H	02H	09H	
	Video3 (S-Video)	DFH	80H	60H	47H	01H	03H	0AH	
	DVD1/HD1 (RCA)	DFH	80H	60H	47H	01H	05H	0CH	
	DVD2/HD2 (BNC)	DFH	80H	60H	47H	01H	06H	0DH	
	RGB1 (mini D-sub 15-pin)	DFH	80H	60H	47H	01H	07H	0EH	
	RGB2 (5BNC)	DFH	80H	60H	47H	01H	08H	0FH	
	RGB3 (DVI)	DFH	80H	60H	47H	01H	0CH	13H	
Audio Mute	ON	9FH	80H	60H	3EH	00H	BDH		
	OFF	9FH	80H	60H	3FH	00H	BEH		
Picture Mode	NORMAL	DFH	80H	60H	0AH	01H	01H	CBH	
	THEAT. 1	DFH	80H	60H	0AH	01H	02H	CCH	
	THEAT. 2	DFH	80H	60H	0AH	01H	03H	CDH	
	DEFAULT	DFH	80H	60H	0AH	01H	04H	CEH	
	BRIGHT	DFH	80H	60H	0AH	01H	05H	CFH	
Screen Mode	STADIUM	DFH	80H	60H	51H	01H	02H	13H	
	ZOOM	DFH	80H	60H	51H	01H	03H	14H	
	NORMAL	DFH	80H	60H	51H	01H	04H	15H	
	FULL	DFH	80H	60H	51H	01H	05H	16H	
	14 : 9	DFH	80H	60H	51H	01H	09H	1AH	
	2.35 : 1	DFH	80H	60H	51H	01H	0AH	1BH	
Auto Picture	ON	DFH	80H	60H	7FH	03H	03H	09H	00H 4DH
	OFF	DFH	80H	60H	7FH	03H	03H	09H	01H 4EH
Cinema Mode	ON	DFH	80H	60H	C1H	01H	01H	82H	
	OFF	DFH	80H	60H	C1H	01H	02H	83H	

Note: Contact your local dealer for a full list of the External Control Codes if needed.

mini D-Sub 15-pin connector (Analog)

RGB 1



Pin No.	Signal (Analog)
1	Red
2	Green or sync-on-green
3	Blue
4	No connection
5	Ground
6	Red ground
7	Green ground
8	Blue ground
9	No connection
10	Sync signal ground
11	No connection
12	Bi-directional DATA (SDA)
13	Horizontal sync or Composite sync
14	Vertical sync
15	Data clock

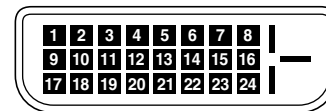
DVI-D 24-pin connector (Digital)

The unit is equipped with a type of connector commonly used for digital.

(This cannot be used for an analog input.)

(TMDS can be used for one link only.)

RGB 3



Pin No.	Signal (Digital)
1	T.M.D.S Data 2 -
2	T.M.D.S Data 2 +
3	T.M.D.S Data 2 Shield
4	No connection
5	No connection
6	DDC Clock
7	DDC Data
8	No connection
9	T.M.D.S Data 1 -
10	T.M.D.S Data 1 +
11	T.M.D.S Data 1 Shield
12	No connection
13	No connection
14	+5V Power
15	Ground
16	Hot Plug Detect
17	T.M.D.S Data 0 -
18	T.M.D.S Data 0 +
19	T.M.D.S Data 0 Shield
20	No connection
21	No connection
22	T.M.D.S Clock Shield
23	T.M.D.S Clock +
24	T.M.D.S Clock -

Troubleshooting

If the picture quality is poor or there is some other problem, check the adjustments, operations, etc., before requesting service.

Symptom	Checks	Remedy
Mechanical sound is heard.	• Maybe the sound from the cooling fans used to prevent over heating.	
The unit emits a crackling sound.	• Are the image and sound normal?	• If there are no abnormalities in the image and sound, the noise is caused by the cabinet reacting to changes in temperature. This will not affect performance.
Picture is disturbed. Sound is noisy. Remote control operates erroneously.	• Is a connected component set directly in front or at the side of the display?	• Leave some space between the display and the connected components.
The remote control does not work.	• Are the remote control's batteries worn out? • Is IR REMOTE set to ON? • Has an ID number been set for the main unit?	• Replace both batteries with new ones. • Set IR REMOTE OFF on OPTION3 menu. • Set an ID number with the ID SELECT button, or set the ID number to ALL.
Monitor's power does not turn on when the remote control's power button is pressed.	• Is the monitor's power cord plugged into a power outlet? • Are all the monitor's indicators off? • Are the remote control's batteries worn out? • Is IR REMOTE set to OFF? • Has an ID number been set for the main unit?	• Plug the monitor's power cord into a power outlet. • Press the power button on the monitor to turn on the power. • Replace both batteries with new ones. • Set IR REMOTE ON. • Set an ID number with the ID SELECT button, or set the ID number to ALL.
Monitor does not operate when the remote control's buttons are pressed.	• Is the remote control pointed at the monitor, or is there an obstacle between the remote control and the monitor? • Is direct sunlight or strong artificial light shining on the monitor's remote control sensor? • Are the remote control's batteries worn out? • The remote cable is plugged into the REMOTE IN terminal (Wired).	• Point the remote control at the monitor's remote control sensor when pressing buttons, or remove the obstacle. • Eliminate the light by closing curtains, pointing the light in a different direction, etc. • Replace both batteries with new ones. • Unplug the remote cable from the monitor.
The front panel buttons of the main unit do not function.	• The front panel buttons do not function during Control Lock.	• Set the Control Lock to OFF.
No sound or picture is produced.	• Is the monitor's power cord plugged into a power outlet?	• Plug the monitor's power cord into a power outlet.
Picture appears but no sound is produced.	• Is the volume set at the minimum? • Is the mute mode set? • Are the speakers properly connected? • Is AUDIO INPUT set correctly?	• Increase the volume. • Press the remote control's MUTE button. • Connect the speakers properly. • Set AUDIO INPUT on the AUDIO menu correctly.
Poor picture with VIDEO signal input.	• Improper control setting. Local interference. Cable interconnections. Input impedance is not correct level.	• Adjust picture control as needed. Try another location for the monitor. Be sure all connections are secure.
Poor picture with RGB signal input.	• Improper control setting. Incorrect 15 PIN connector pin connections.	• Adjust picture controls as needed. Check pin assignments and connections.
Tint is poor or colors are weak.	• Are the tint and colors properly adjusted?	• Adjust the tint and color (under PICTURE).
Nothing appears on screen.	• Is the computer's power turned on? • Is a source connected? • Is the power management function in the standby or off mode? • Is LOOP OUT set to ON?	• Turn on the computer's power. • Connect source to the monitor. • Operate the computer (move the mouse, etc.). • Set LOOP OUT OFF.
Part of picture is cut off or picture is not centered.	• Is the position adjustment appropriate?	• Adjust the IMAGE ADJUST properly.
Image is too large or too small.	• Is the screen size adjustment appropriate?	• Press the WIDE button on the remote control and adjust properly.
Picture is unstable.	• Is the computer's resolution setting appropriate?	• Set to the proper resolution.
POWER/STANDBY indicator is lighted in red.	• Horizontal and / or vertical sync signal is not present when the Intelligent Power Manager control is on.	• Check the input signal.
POWER/STANDBY indicator is blinking in red.	• The temperature inside the main unit has become too high and has activated the protector.	• Promptly switch off the power of the main unit and wait until the internal temperature drops. See*1.
POWER/STANDBY indicator is blinking in green and red, or green.		• Promptly switch off the power of the main unit. See *2.

*1 Overheat protector

If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location and wait for the monitor to cool for 60 minutes. If the problem persists, contact your dealer.

*2 In the following case, power off the monitor immediately and contact your dealer or authorized Service Center.

The monitor turns off 5 seconds after powering on and then the POWER/STANDBY indicator blinks. It indicates that the power supply circuit, plasma display panel, temperature sensor, or one or more fans have been damaged.

Limited Warranty Plasma Monitors

NEC Solutions, Inc. (hereinafter NEC Solutions) warrants this product to be free from defects in material and workmanship under the following terms and, subject to the conditions set forth below, agrees to repair or replace (at NEC Solutions' sole option) any part of the enclosed unit which proves defective. Replacement parts or products may be new or refurbished and will meet specifications of the original parts or products.

HOW LONG IS THE WARRANTY?

Parts and labor are warranted for (1) one year from the date of the first customer purchase.

WHO IS PROTECTED?

This warranty may be enforced only by the first purchaser.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as specified below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed in the U.S.A. or Canada by NEC Solutions or which is not purchased in the U.S.A. or Canada from an authorized NEC Solutions dealer.
2. Any product of which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
 - a. Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - b. Repair or attempted repair by anyone not authorized by NEC Solutions.
 - c. Any shipment of the product (claims must be presented to the carrier).
 - d. Removal or installation of the product.
 - e. Any other cause which does not relate to a product defect.
 - f. Burns or residual images upon the phosphor of the panel.
4. Cartons, carrying cases, batteries, external cabinets, magnetic tapes, or any accessories used in connection with the product.
5. Service outside of the U.S.A. and Canada.

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items, but we will not pay for the following:

1. Removal or installation charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls. These costs are the responsibility of the NEC Solutions dealer from whom the product was purchased.
3. Shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on your product, consult the dealer from whom you purchased the product.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage. Please also include in any mailing your name, address and a description of the problem(s).
3. For the name of the nearest NEC Solutions authorized service center, call NEC Solutions at 800-836-0655.

LIMITATIONS OF LIABILITY

Except for the obligations specifically set forth in this warranty statement, we will not be liable for any direct, indirect, special, incidental, consequential, or other types of damages, whether based on contract, tort, or any other legal theory, whether or not we have been advised of the possibility of such damages. This warranty is in lieu of all other warranties expressed or implied, including, but not limited to, the implied warranties of merchantability or fitness for a particular purpose.

EXCLUSION OF DAMAGES

NEC Solutions' liability for any defective product is limited to the repair or replacement of the product at our option. NEC Solutions shall not be liable for:

1. Damage to other property caused by any defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or
2. Any other damages whether incidental, consequential or otherwise. Some states do not allow limitation on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

HOW STATE LAW RELATES TO THE WARRANTY

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

FOR MORE INFORMATION,
TELEPHONE 800-836-0655
NEC SOLUTIONS (AMERICA), INC.
1250 N. Arlington Heights Road, Suite 400
Itasca, Illinois 60143-1248

Note: All products returned to NEC Solutions (America), Inc. for service **MUST** have prior approval. To get approval, call NEC Solutions (America), Inc. at 800-836-0655.



NEC Solutions (America), Inc.
1250 N. Arlington Heights Road, Suite 400
Itasca, Illinois 60143-1248

Printed on recycled paper

Printed in Japan
7S801381

PlasmaSync Plasma Monitor



***PlasmaSync 50XM4
PX-50XM4G***

Model Information

Modell-Informationen

Informations modèle

Información del modelo

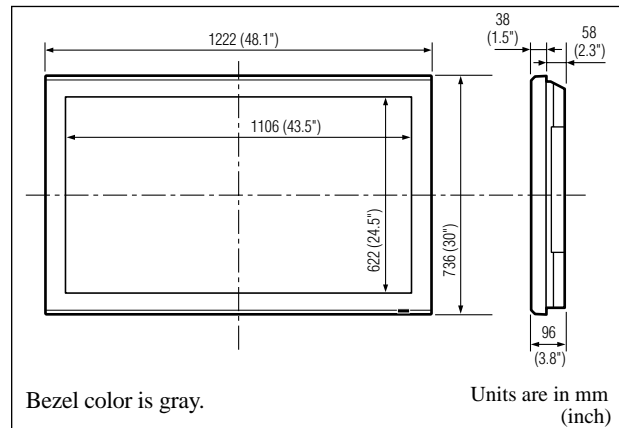
Informazioni sul modello

Информация о модели

Specifications

For the operation of your plasma monitor, refer to "Operation Manual".

Screen Size	1106(H) × 622(V) mm 43.5"(H) × 24.5"(V) inches diagonal 50"
Aspect Ratio	16 : 9
Resolution	1365(H) × 768(V) pixels
Pixel Pitch	0.81(H) × 0.81(V) mm 0.032"(H) × 0.032"(V) inches
Color Processing	4,096 steps, 68.7 billion colors
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD* ¹ , DVD* ¹ , DTV* ¹
Input Terminals (VIDEO1 and RGB1 can also be used as OUTPUT terminals)	
RGB	
Visual 1 (Analog)	mini D-sub 15-pin × 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) × 1* ²
Visual 3 (Digital)	DVI-D 24-pin × 1* ³
Video	
Visual 1	BNC × 1
Visual 2	RCA-pin × 1
Visual 3	S-Video: DIN 4-pin × 1
DVD/HD/DTV	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) × 1* ¹
Visual 2	BNC (Y, PB[CB], PR[CR]) × 1* ^{1, *2}
Visual 3	DVI-D 24-pin × 1* ³
Audio	Stereo RCA × 3 (Selectable)
External Control	D-sub 9-pin × 1 (RS-232C)
Sound output	9W+9W at 6 ohm
Power Supply	AC100-240V 50/60Hz
Current Rating	7.6 A (maximum)
Power Consumption	435W (typical)
Dimensions	1222 (W) × 736 (H) × 96(D) mm 48.1 (W) × 30 (H) × 3.8 (D) inches
Weight	44 kg / 97 lbs (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Humidity	20 to 80% (no condensation)
Altitude	0 to 2800 m / 0 to 9180 feet
Storage Temperature	-10°C to 50°C / 14°F to 122°F
Humidity	10 to 90% (no condensation)
Altitude	0 to 3000 m / 0 to 9840 feet
Front Panel User Controls	Power on/off, Input source select, Volume up/down/ OSM control
Remote Control Functions	Power on/off, Input source select, OSM control, Volume up/down, Cursor (UP, DOWN, LEFT, RIGHT), Pointer, Zoom up/ down, Off timer, Wireless/Wired remote control, Split screen buttons
OSM Functions	Picture (Contrast/Brightness/Sharpness/ Color/Tint/ Picture mode/Noise reduction/Color temperature/ White balance/Gamma/Low tone/Color tune), Audio (Bass/Treble/Balance/Audio input), Image Adjust (Aspect mode/V-Position /H-Position/V-Height /H- Width/Auto Picture/Fine picture/Picture adjustment), Option1 (OSM/BNC Input/D-Sub Input/RGB Select/ HD Select/Input Skip/All Reset), Option2 (Power management/Cinema mode/Long life [PLE, Orbiter, Inverse, White, Screen wiper, Soft focus]/Gray level/ S1/S2/Picture size/DVI Set up), Option3 (Timer/ Power on mode/Control lock/IR Remote/Loop out/ ID number/Video wall [Divider, Position, Disp. mode, Auto ID, Image adjust, Power on delay, PLE link, Timer]), Option4 (Sub. P detect/Zoom nav/Pic freeze/ Seamless SW), Advanced OSM, Language*, Color system, Source information *English, German, French, Italian, Spanish, Swedish, Chinese, Russian



The features and specifications may be subject to change without notice.

*¹ HD/DVD/DTV input signals supported on this system

480P (60 Hz)	480I (60 Hz)
525P (60 Hz)	525I (60 Hz)
576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)
720P (60 Hz)	1035I (60 Hz)
1080I (50 Hz)	1080I (60 Hz)

*² The 5-BNC connectors are used as RGB/PC2 and HD/DVD2 input. Select one of them under "BNC INPUT".

*³ Compatible with HDCP.

Supported Signals

- 640 × 480P @ 59.94/60Hz
- 1280 × 720P @ 59.94/60Hz
- 1920 × 1080I @ 59.94/60Hz
- 720 × 480P @ 59.94/60Hz
- 1440 (720) × 480I @ 59.94/60Hz
- 1920 × 1080I @ 50Hz
- 720 × 576P @ 50Hz
- 1440 (720) × 576P @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Video Wall 4-25 multi screen, Self Diagnosis, Image Burn reduction tools (PLE LOCK1~3, INVERSE, WHITE, ORBITER (Auto1,2/Manual), SCREEN WIPER), Color Temperature select (high/mid/low/low, user has 4 memories), Control lock (Except power SW), Auto Picture, Input Skip, Color Tune, Low Tone (3 mode), Auto ID, Programmable Timer, Gamma Correction (4 mode), Loop through interface, Plug and play (DDC1, DDC2b, RGB3: DDC2b only), Split screen operations
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Accessories	Remote control with two AAA batteries, Power cord, Manuals, Safety metal fittings, Ferrite cores, Bands, Cable clamps
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Regulations	Meets EMC Directive (EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3) Meets Low Voltage Directive (EN60950-1, IEC60950-1, SEMKO Approved) Meets AS/NZS CISPR 22:2002 Class A
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Table of Signals Supported

Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 1024 dots × 768 lines signal. (Except for *2,3,4)
- When the screen mode is TRUE, the picture is displayed in the original resolution.
- When the screen mode is FULL, each signal is converted to a 1365 dots × 768 lines signal. (Except for *3)

Computer input signals supported by this system

Model	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode			RGB select*5	DVI	Memory
				Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	TRUE	FULL (16:9)			
IBM PC/AT*8 compatible computers	640 × 400	70.1	31.5	NEG	NEG	YES	YES	YES*2	YES	YES	--	NO	4
	640 × 480	59.9	31.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	5
		72.8	37.9	NEG	NEG	YES	YES	YES	YES	YES	--	YES	7
		75.0	37.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	8
		85.0	43.3	NEG	NEG	YES	YES	YES	YES	YES	--	YES	9
		100.4	51.1	NEG	NEG	YES	YES	YES	YES	YES	--	YES	41
		120.4	61.3	NEG	NEG	YES	YES	YES	YES	YES	--	YES	42
	848 × 480	60.0	31.0	POS	POS	YES	YES	--	YES	YES	WIDE2	YES	19
	852 × 480*1	60.0	31.7	NEG	NEG	YES	YES	--	YES	YES	WIDE1	YES	17
	800 × 600	56.3	35.2	POS	POS	YES	YES	YES	YES	YES	STILL	YES	11
		60.3	37.9	POS	POS	YES	YES	YES	YES	YES	STILL	YES	12
		72.2	48.1	POS	POS	YES	YES	YES	YES	YES	--	YES	13
		75.0	46.9	POS	POS	YES	YES	YES	YES	YES	--	YES	14
		85.1	53.7	POS	POS	YES	YES	YES	YES	YES	--	YES	15
		99.8	63.0	POS	POS	YES	YES	YES	YES	YES	--	YES	43
	1024 × 768	120.0	75.7	POS	POS	YES	YES	YES	YES	YES	--	YES	44
		60.0	48.4	NEG	NEG	YES	YES	YES*3	--	YES	STILL	YES	24
		70.1	56.5	NEG	NEG	YES	YES	YES*3	--	YES	--	YES	25
		75.0	60.0	POS	POS	YES	YES	YES*3	--	YES	STILL	YES	26
		85.0	68.7	POS	POS	YES	YES	YES*3	--	YES	--	YES	27
		100.6	80.5	NEG	NEG	YES	YES	YES*3	--	YES	--	YES	45
	1152 × 864	75.0	67.5	POS	POS	YES	YES	YES	--	YES	STILL	YES	51
	1280 × 768	56.2	45.1	POS	POS	YES	YES	--	--	YES	WIDE1	NO	52
		59.8	48.0	POS	NEG	YES	YES	--	--	YES	WIDE3	YES	80
	1280 × 768*9	69.8	56.0	NEG	POS	YES	YES	--	--	YES	WIDE1	YES	66
	1280 × 800*9	60.0	49.7	NEG	NEG	YES	YES	--	--	YES	WIDE1	YES	21
	1280 × 854*9	60.0	53.1	NEG	NEG	YES	YES	--	--	YES	WIDE2	YES	37
	1360 × 765	60.0	47.7	POS	POS	YES	YES	--	--	YES*3	WIDE1	NO	22
	1360 × 768	60.0	47.7	POS	POS	YES	YES	--	--	YES*3	WIDE1	YES	22
	1376 × 768	59.9	48.3	NEG	POS	YES	YES	--	--	YES	WIDE2	YES	53
	1280 × 1024	60.0	64.0	POS	POS	YES	YES	YES*4	--	YES	STILL	YES	29
		75.0	80.0	POS	POS	YES	YES	YES*4	--	YES	--	YES	30
		85.0	91.1	POS	POS	YES	YES	YES*4	--	YES	--	YES	40
		100.1	108.5	POS	POS	YES	YES	YES*4	--	YES	--	NO	47
	1680 × 1050*9	60.0	65.3	NEG	NEG	YES	YES	--	--	YES	WIDE4	YES	38
	1600 × 1200	60.0	75.0	POS	POS	YES	YES	YES	--	YES	--	YES	54
		65.0	81.3	POS	POS	YES	YES	YES	--	YES	--	NO	55
		70.0	87.5	POS	POS	YES	YES	YES	--	YES	--	NO	56
		75.0	93.8	POS	POS	YES	YES	YES	--	YES	--	NO	57
		85.0	106.3	POS	POS	YES	YES	YES	--	YES	--	NO	58
	1920 × 1200*9	60.0	74.6	NEG	NEG	YES	YES	--	--	YES	WIDE2	--	81
	1920 × 1200RB*9	60.0	74.0	NEG	NEG	YES	YES	--	--	YES	WIDE3	YES	88
Apple Macintosh*6 *8	640 × 480	66.7	35.0	Sync on G	Sync on G	--	--	YES	YES	YES	--	NO	6
	832 × 624	74.6	49.7	Sync on G	Sync on G	--	--	YES	YES	YES	--	NO	16
	1024 × 768	74.9	60.2	Sync on G	Sync on G	--	--	YES*3	--	YES	WIDE1	NO	28
	1152 × 870	75.1	68.7	Sync on G	Sync on G	--	--	YES	--	YES	WIDE1	NO	39
	1440 × 900*9	60.0	56.0	NEG	NEG	YES	YES	--	--	YES	--	YES	89
Work Station (EWS4800)*8	1280 × 1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	--	YES	--	YES	29
		71.2	75.1	NEG	NEG	YES	YES	YES*4	--	YES	--	YES	48
Work Station(HP)*8	1280 × 1024	72.0	78.1	--	--	--	--	YES*4	--	YES	--	YES	59
Work Station (SUN)*8	1152 × 900	66.0	61.8	C Sync	C Sync	--	--	YES	--	YES	--	YES	60
		76.0	71.7	C Sync	C Sync	--	--	YES	--	YES	--	YES	61
	1280 × 1024	76.1	81.1	C Sync	C Sync	--	--	YES*4	--	YES	--	YES	30
Work Station (SGI)	1024 × 768	60.0	49.7	--	--	--	--	YES*3	--	YES	--	YES	62
	1280 × 1024	60.0	63.9	--	--	--	--	YES*4	--	YES	--	YES	29
IDC-3000G													
	PAL625P	768 × 576	50.0	NEG	NEG	YES	YES	YES*7	--	YES*7	--	NO	31
	NTSC525P	640 × 480	59.9	NEG	NEG	YES	YES	YES*7	--	YES*7	MOTION	NO	32

- *1 Only when using a graphic accelerator board that is capable of displaying 852×480.
- *2 This signal is converted to a 1024 dots×640 lines signal.
- *3 The picture is displayed in the original resolution. The picture will be compressed for other signals.
- *4 Aspect ratio is 5:4. This signal is converted to a 960 dots×768 lines signal.
- *5 Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
- *6 To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin) to your computer's video port.
- *7 Other screen modes (ZOOM and STADIUM) are available as well.
- *8 When viewing a moving picture at a vertical frequency greater than 65Hz, the picture may sometimes be unstable (jumpy). If this occurs, please set the refresh rate of the external equipment to 60Hz.
To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (567 interlaced lines, 50Hz refresh rate) when sync polarity is "Sync on Green", set "RGB SELECT" to "MOTION".
- *9 CVT standard compliant.

NOTE:

- While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.
- When a 1280 dots × 1024 lines signal or 1600 dots × 1200 lines signal is input to the monitor, the picture will be compressed.
- This monitor has a resolution of 1365 dots × 768 lines. It is recommended that the input signal should be XGA, wide XGA, or equivalent.
- With digital input some signals are not accepted.
- The sync may be disturbed when a nonstandard signal other than the aforementioned is input.
- If you are connecting a composite sync signal, use the HD terminal.

What is HDCP/HDCP technology?

HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).

If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

- "IBM PC/AT" and "XGA" are registered trademarks of International Business Machines, Inc. of the United States.
- "Apple Macintosh" is a registered trademark of Apple Computer, Inc. of the United States.

Important Information

Warning

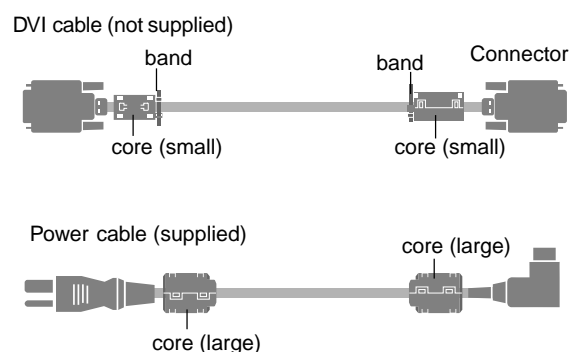
Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

NOTE:

When you connect a computer to this monitor, use an RGB cable including the ferrite core on both ends of the cable. And regarding DVI and power cable, attach the supplied ferrite cores. If you do not do this, this monitor will not conform to mandatory CE or C-Tick standards. Set the ferrite cores on both ends of the DVI cable (not supplied), and both ends of the power cable (supplied). Close the lid tightly until the clamps click. Use the band to fasten the ferrite core (supplied) to the DVI cable.





Operation Manual

(Enhanced split screen Model)

For the specifications of your plasma monitor, refer to "Model Information".

ENGLISH

DEUTSCH

FRANÇAIS

ESPAÑOL


ITALIANO

РУССКИЙ


Important Information

Precautions

Please read this manual carefully before using your plasma monitor and keep the manual handy for future reference.



CAUTION



**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS, UNLESS THE PRONGS CAN BE FULLY INSERTED. REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warnings and Safety Precaution

This plasma monitor is designed and manufactured to provide long, trouble-free service. No maintenance other than cleaning is required. Please see the section "Plasma monitor cleaning procedure" on the next page.

The plasma display panel consists of fine picture elements (cells) with more than 99.99 percent active cells. There may be some cells that do not produce light or remain lit.

For operating safety and to avoid damage to the unit, read carefully and observe the following instructions.

To avoid shock and fire hazards:

1. Provide adequate space for ventilation to avoid internal heat build-up. Do not cover rear vents or install the unit in a closed cabinet or shelves.
If you install the unit in an enclosure, make sure there is adequate space at the top of the unit to allow hot air to rise and escape. If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location, and wait for 60 minutes to cool the monitor. If the problem persists, contact your dealer for service.
2. Do not use this unit's polarized plug with extension cords or outlets unless the prongs can be completely inserted.
3. Do not expose the unit to water or moisture.
4. Avoid damage to the power cord, and do not attempt to modify the power cord.
5. Unplug the power cord during electrical storms or if the unit will not be used over a long period.
6. Do not open the cabinet which has potentially dangerous high voltage components inside. If the unit is damaged in this way the warranty will be void. Moreover, there is a serious risk of electric shock.

7. Do not attempt to service or repair the unit. The manufacturer is not liable for any bodily harm or damage caused if unqualified persons attempt service or open the back cover. Refer all service to authorized Service Centers.

To avoid damage and prolong operating life:

1. Use only with 100-240V 50/60Hz AC power supply. Continued operation at line voltages greater than 100-240 Volts AC will shorten the life of the unit, and might even cause a fire hazard.
2. Handle the unit carefully when installing it and do not drop.
3. Set the unit away from heat, excessive dust, and direct sunlight.
4. Protect the inside of the unit from liquids and small metal objects.
In case of accident, unplug the power cord and have it serviced by an authorized Service Center.
5. Do not hit or scratch the panel surface as this causes flaws on the surface of the screen.
6. For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.
7. As is the case with any phosphor-based display (like a CRT monitor, for example) light output will gradually decrease over the life of a Plasma Display Panel.
8. To avoid sulfurization it is strongly recommended not to place the unit in a dressing room in a public bath or hot spring bath.
9. Do not use in a moving vehicle, as the unit could drop or topple over and cause injuries.
10. Do not place the unit on its side, upside-down or with the screen facing up or down, to avoid combustion or electric shock.

Plasma monitor cleaning procedure:

1. Use a soft dry cloth to clean the front panel and bezel area. Never use solvents such as alcohol or thinner to clean these surfaces.
2. Clean plasma ventilation areas with a vacuum cleaner with a soft brush nozzle attachment.
3. To ensure proper ventilation, cleaning of the ventilation areas must be carried out monthly. More frequent cleaning may be necessary depending on the environment in which the plasma monitor is installed.

Recommendations to avoid or minimize phosphor burn-in:

Like all phosphor-based display devices and all other gas plasma displays, plasma monitors can be susceptible to phosphor burn under certain circumstances. Certain operating conditions, such as the continuous display of a static image over a prolonged period of time, can result in phosphor burn if proper precautions are not taken. To protect your investment in this plasma monitor, please adhere to the following guidelines and recommendations for minimizing the occurrence of image burn:

- * Always enable and use your computer's screen saver function during use with a computer input source.
- * Display a moving image whenever possible.
- * Change the position of the menu display from time to time.
- * Always power down the monitor when you are finished using it.

If the plasma monitor is in long term use or continuous operation take the following measures to reduce the likelihood of phosphor burn:

- * Lower the Brightness and Contrast levels as much as possible without impairing image readability.
- * Display an image with many colors and color gradations (i.e. photographic or photo-realistic images).
- * Create image content with minimal contrast between light and dark areas, for example white characters on black backgrounds. Use complementary or pastel color whenever possible.
- * Avoid displaying images with few colors and distinct, sharply defined borders between colors.

* Note: Burn-in is not covered by the warranty.

Contact your dealer for other recommended procedures that will best suit your particular application needs.

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Contents of the Package

- ☐ Plasma monitor
- ☐ Power cord
- ☐ Remote control with two AAA Batteries
- ☐ Manuals (Model Information and Operation)
- ☐ Safety metal fittings*
- ☐ Ferrite cores, bands
- ☐ Cable clamps

* Contents will differ according to the model.

* These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws (see page E-4).

Options

- Wall mount unit
- Ceiling mount unit
- Tilt mount unit
- Stand
- Attachable speakers

Installation

You can attach your optional mounts or stand to the plasma monitor in one of the following two ways:

- * While it is upright. (See Drawing A)
- * As it is laid down with the screen face down (See Drawing B). Lay the protective sheet, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.
- * Do not touch or hold the screen face when carrying the unit.

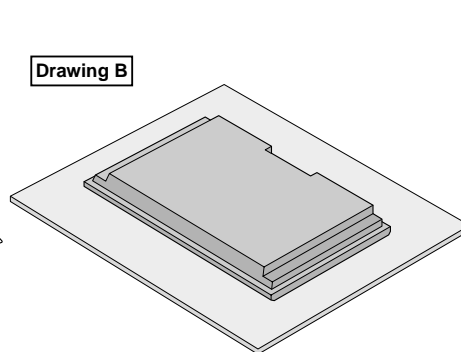
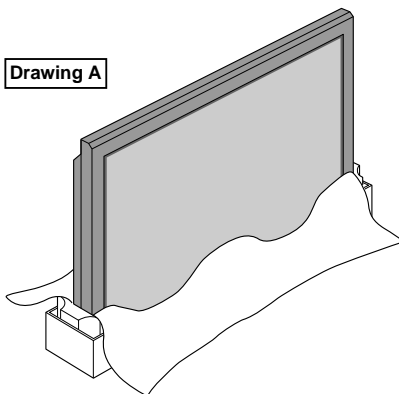
• **This device cannot be installed on its own. Be sure to use a stand or original mounting unit. (Wall mount unit, Stand, etc.)**

* See page E-3.

• **For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.**

Failure to follow correct mounting procedures could result in damage to the equipment or injury to the installer.

Product warranty does not cover damage caused by improper installation.

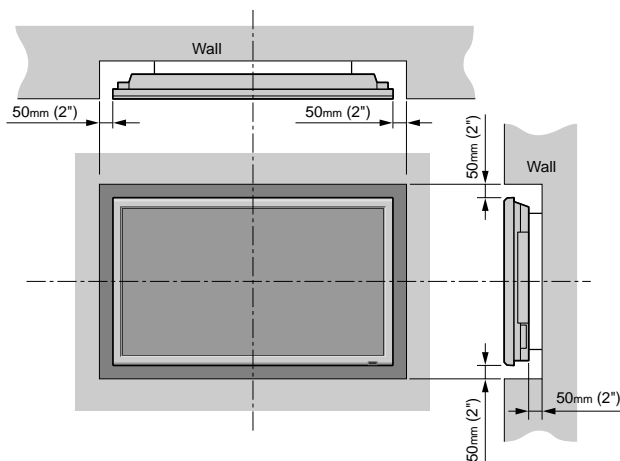


When installing or carrying, use the handles attached to the upper back of the display.



Ventilation Requirements for enclosure mounting

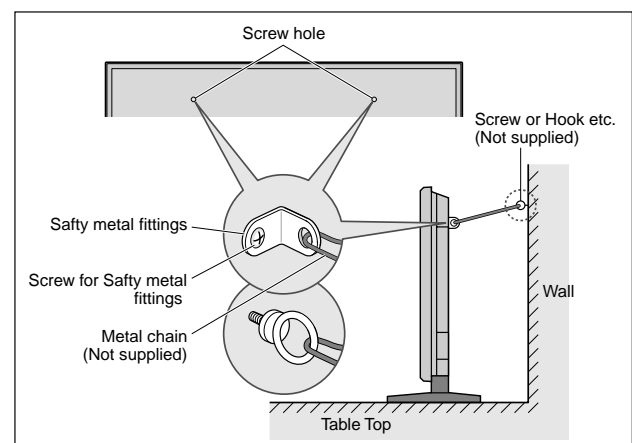
To allow heat to disperse, leave space between surrounding objects as shown on the diagram below when installing.



How to use the safety metal fittings and the screws for safety metal fittings

These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws.

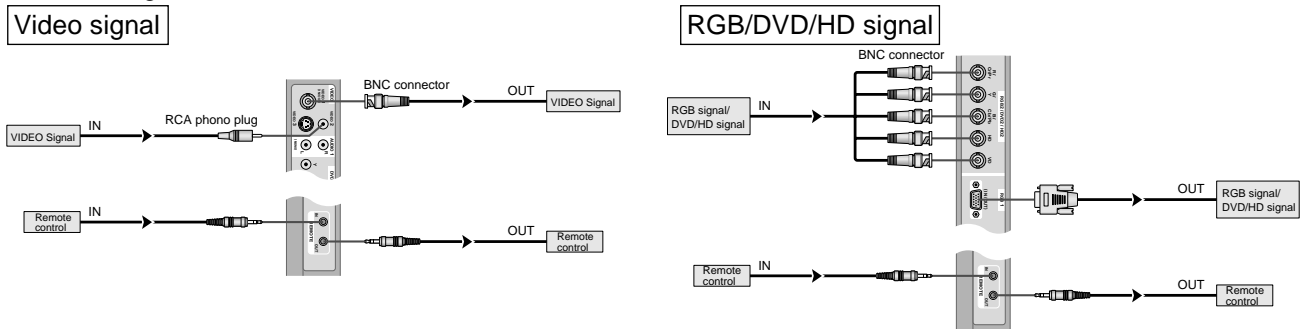
* Safety metal fittings will differ according to the model.



Creating a video wall

With built-in matrix display capability, you can create a 4-25 video wall.

- Connect signal cables and remote cables as shown below.



Note:

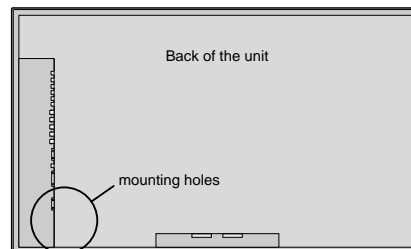
- The VIDEO1 and RGB1 terminals can be used for either INPUT or OUTPUT.
When LOOP OUT is ON, do not connect an OUTPUT signal from another unit, that will place an extraordinary load on the other unit and may damage it.
- LOOP OUT can not be turned ON while signals are input to the RGB1 terminal.
- LOOP OUT can be turned ON while signals are input to the RGB1 terminal if the POWER is switched ON.

Information

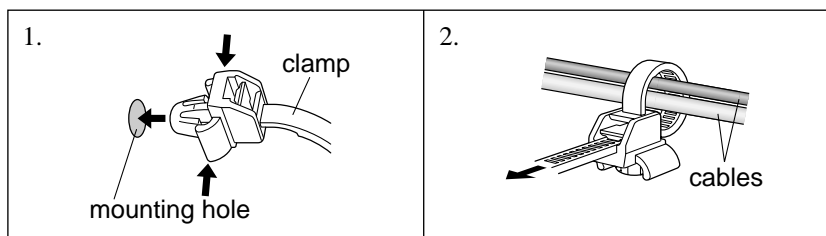
- To loop signals out to another plasma display, set the LOOP OUT to ON.
- To create a video wall, set the VIDEO WALL menu items properly.
- To connect monitors, please use a 1~2m (3.3~6.6 feet) BNC cable (any commercially available cable).
- If the image quality is poor, do not use the monitor's out terminal. Use a distribution amplifier (any commercially available distribution amplifier) to connect the split signals to the respective monitor INPUT terminals.
- Being used as a video wall function, maximally 4-screen is rough-standard with lower than 1024×768, 60Hz signal.
- A distribution amplifier is particularly recommended when using 9-screen and over video wall.
- From the second monitor onward, connections require a BNC-RCA conversion cable or connector, a mini D-Sub 15 pin cable-BNC (×5) cable or a conversion connector.

Cable Management

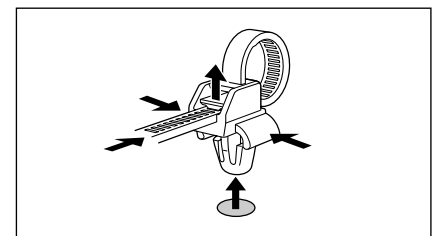
Using the cable-clamps provided with the plasma display, bundle at the back of the unit the signal and audio cables connected to the display.



To attach

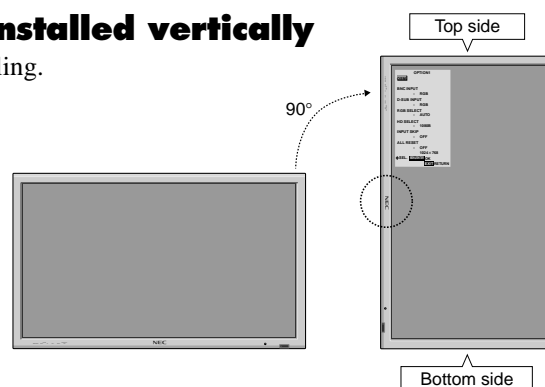


To detach



Caution on when the plasma monitor is installed vertically

- Use the optional unit. Contact your store of purchase when installing.
 - Rotate 90° clockwise as seen from the front when installing.
 - After installing, check with the NEC logo mark as seen from the front.
 - Be sure to set “OSM ANGLE” to “V” when using.
- * Failure to heed the above cautions may lead to malfunction.

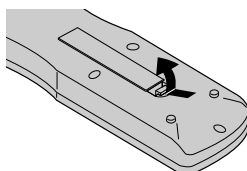


How to use the remote control

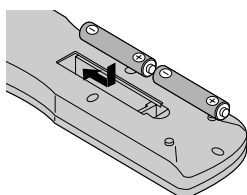
Battery Installation and Replacement

Insert the 2 “AAA” batteries, making sure to set them in with the proper polarity.

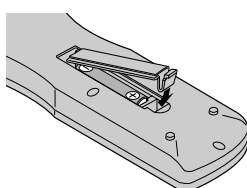
1. Press and open the cover.



2. Align the batteries according to the (+) and (–) indication inside the case.



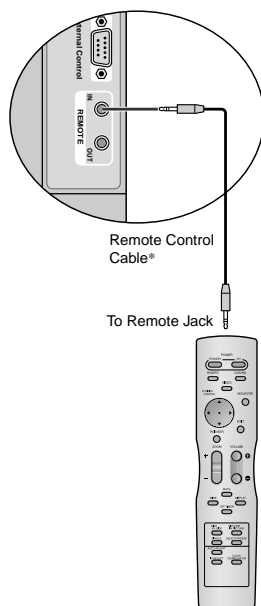
3. Replace the cover.



Using the wired remote control mode

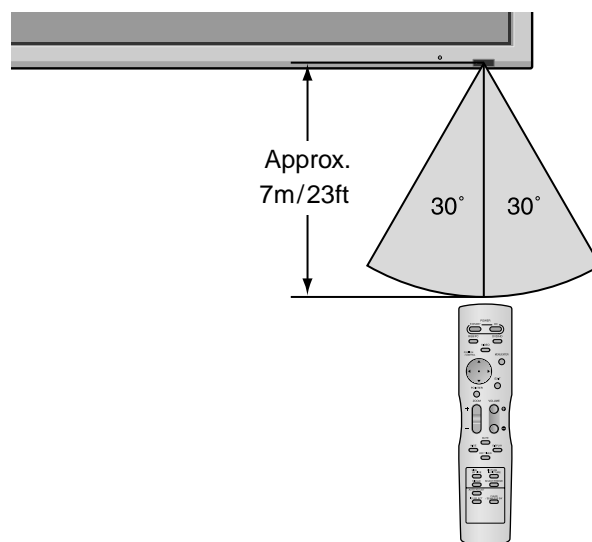
Connect the remote cable* to the remote control's remote jack and the “REMOTE IN” terminal on the monitor.

When the cable is connected, the mode automatically switches to wired remote control. When the wired remote control mode is used, the remote control can be operated even if no batteries are loaded.



Operating Range

- * Use the remote control within a distance of about 7 m/ 23ft. from the front of the monitor's remote control sensor and at horizontal and vertical angles of up to approximately 30°.
- * The remote control operation may not function if the monitor's remote control sensor is exposed to direct sunlight or strong artificial light, or if there is an obstacle between the sensor and the remote control.



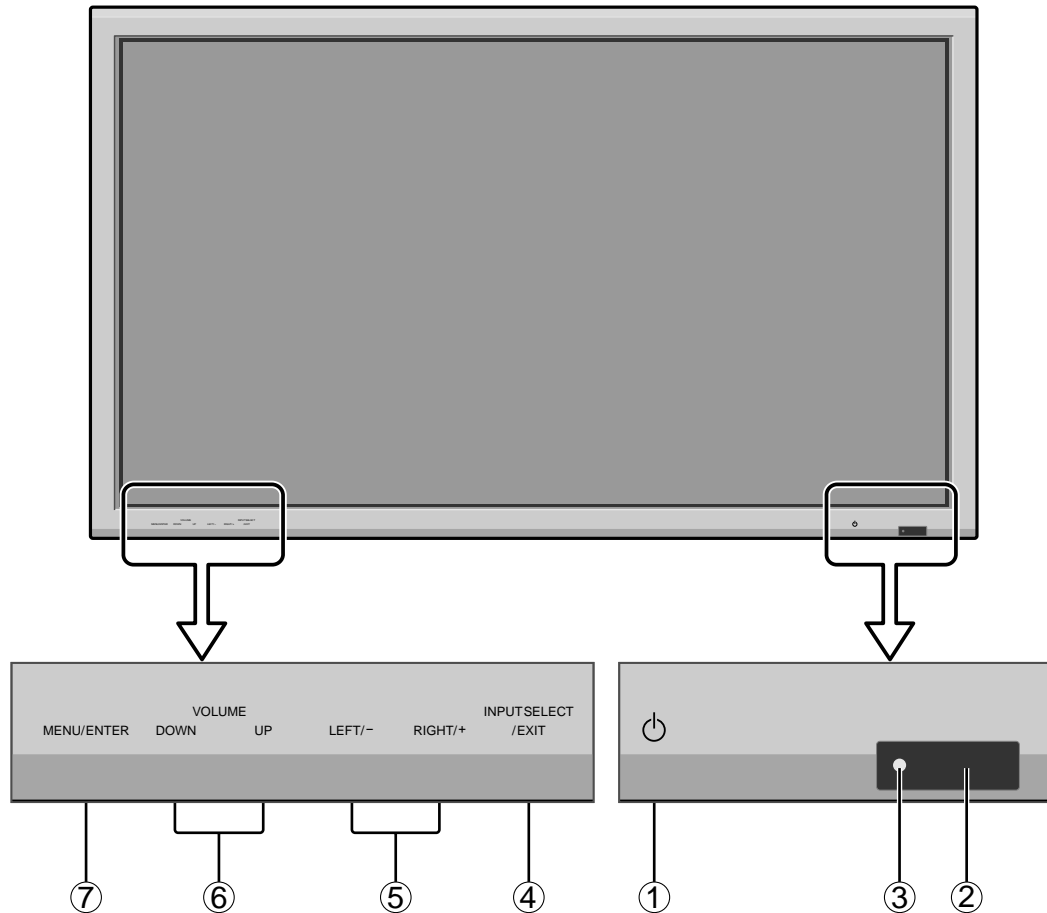
Handling the remote control

- Do not drop or mishandle the remote control.
- Do not get the remote control wet. If the remote control gets wet, wipe it dry immediately.
- Avoid heat and humidity.
- When not using the remote control for a long period, remove the batteries.
- Do not use new and old batteries together, or use different types together.
- Do not take apart the batteries, heat them, or throw them into a fire.
- When using the remote control in the wireless condition, be sure to unplug the remote cable from the REMOTE IN terminal on the monitor.

* The 1/8 Stereo Mini cable must be purchased separately.

Part Names and Function

Front View



- ① **Power**
Turns the monitor's power on and off.
- ② **Remote sensor window**
Receives the signals from the remote control.
- ③ **POWER/STANDBY indicator**
When the power is on Lights green.
When the power is in the standby mode ... Lights red.
- ④ **INPUT SELECT / EXIT**
Switches the input.
The available inputs depend on the settings of "BNC INPUT", "D-SUB INPUT", "RGB SELECT" and "DVI SET UP".
Functions as the EXIT buttons in the On-Screen Menu (OSM) mode.
- ⑤ **LEFT/- and RIGHT/+**
Enlarges or reduces the image. Functions as the CURSOR (◀/▶) buttons in the On-Screen Menu (OSM) mode.
- ⑥ **VOLUME DOWN and UP**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Menu (OSM) mode.
- ⑦ **MENU/ENTER**
Sets the On-Screen Menu (OSM) mode and displays the main menu.

WARNING

The Power on/off switch does not disconnect the plasma display completely from the supply mains.

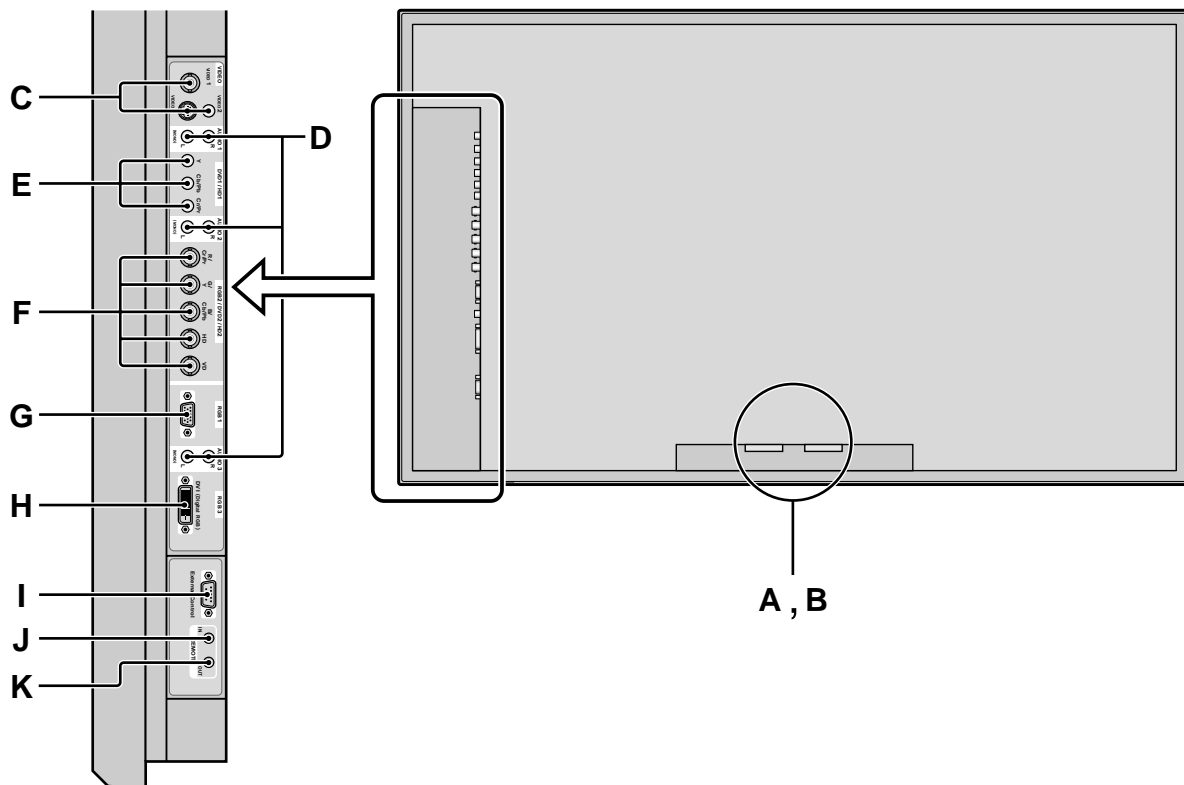
Note: This plasma monitor has the capacity to display images when connected to European DVD players with a SCART output signal, which is RGB with composite sync.

Your dealer can supply a special SCART cable, which will enable you to use the RGB with composite sync signal.

To obtain the special cable as well as for further information, please contact your dealer.

Please refer to page E-21 for selection of the correct mode in the on-screen manager.

Rear View/ Terminal Board



A AC IN

Connect the included power cord here.

B EXT SPEAKER L and R

Connect speakers (optional) here. Maintain the correct polarity. Connect the \oplus (positive) speaker wire to the \oplus EXT SPEAKER terminal and the \ominus (negative) speaker wire to the \ominus EXT SPEAKER terminal on both LEFT and RIGHT channels.

Please refer to your speaker's owner's manual.

C VIDEO1, 2, 3 (BNC, RCA, S-Video)

Connect VCR's, DVD's or Video Cameras, etc. here. VIDEO1 can be used for Input or Output (see page E-5).

D AUDIO1, AUDIO2, AUDIO3

These are audio input terminals.

The input is selectable. Set which video image to allot them from the audio menu screen.

E DVD1 / HD1

Connect DVD's, High Definition or Laser Discs, etc. here.

F RGB2/ DVD2/ HD2

RGB2: You can connect an analog RGB signal and the synchronization signal.

DVD2/ HD2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.

This input can be set for use with an RGB or component source (see page E-21)

G RGB1 (mini D-Sub 15pin)

Connect an analog RGB signal from a computer, etc. here. This input can be used for Input or Output. (see page E-5)

H RGB3 (DVI 24pin)

Connect a digital signal (TMDS) from a source with a DVI output.

This input can be set for use with an RGB/PC3 (see page E-26)

I EXTERNAL CONTROL

This terminal is used when operating and controlling the monitor externally (by RS-232C).

J REMOTE IN

Connect the remote cable* to the remote control's remote jack to obtain wired remote control.

K REMOTE OUT

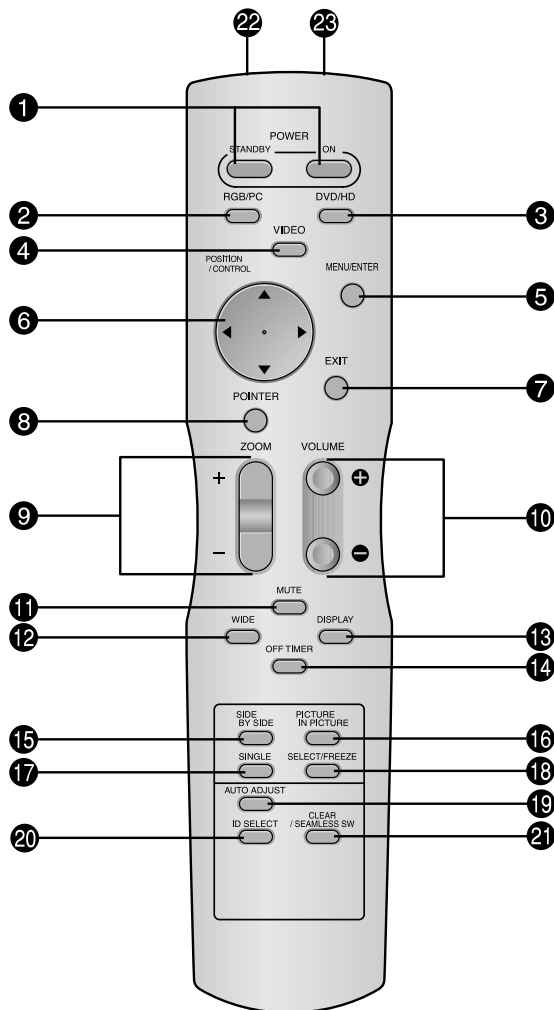
Connect the remote cable* to the REMOTE IN jack of the other display monitor to obtain wired remote control.

* The 1/8 Stereo Mini cable must be purchased separately.

Information

- For Y/CB/Cr, connect to the DVD1 or DVD2 terminals.
- For SCART, this unit provides three ways to connect:
 - SCART1: Connect R/G/B to the DVD2 terminals and composite sync. to the HD terminal.
 - SCART2: Connect R/G/B to the DVD2 terminals and composite sync. to the VIDEO1 terminal.
 - SCART3: Connect R/G/B + composite sync. to the RGB1 terminal.

Remote Control



1 POWER ON/STANDBY

Switches the power on/standby.
(This does not operate when POWER/STANDBY indicator of the main unit is off.)

2 RGB/PC

Press this button to select RGB/PC as the source.
RGB/PC can also be selected using the INPUT SELECT button on the monitor.

3 DVD / HD

Press this button to select DVD/HD as the source.
DVD/HD can also be selected using the INPUT SELECT button on the monitor.

4 VIDEO

Press this button to select VIDEO as the source.

→ VIDEO1 → VIDEO2 → VIDEO3

VIDEO can also be selected using the INPUT SELECT button on the monitor.

5 MENU/ENTER

Press this button to access the OSM controls.
Press this button during the display of the main menu to go to the sub menu.

6 CURSOR (▲ / ▼ / ◀ / ▶)

Use these buttons to select items or settings and to adjust settings or switch the display patterns.

7 EXIT

Press this button to exit the OSM controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.

8 POINTER

Press this button to display the pointer.

9 ZOOM (+ / -)

Enlarges or reduces the image.

10 VOLUME (+ / -)

Adjusts the audio volume.

11 MUTE

Mutes the audio.

12 WIDE

Automatically detects the signal and sets the aspect ratio.
Wide button is not active for all signals.

13 DISPLAY

Displays the source settings on the screen.

14 OFF TIMER

Activates the off timer for the unit.

15 SIDE BY SIDE

Press this button to show a couple of pictures in the side-by-side mode.

16 PICTURE IN PICTURE

Press this button to show a couple of pictures in the picture-in-picture mode.

17 SINGLE

Cancels the split screen mode.

18 SELECT/FREEZE

Press this button to select the active picture in a split screen mode.

When the PIC FREEZE function is operating, this button can be used to display still images on the sub screen.

19 AUTO ADJUST

Press this button to adjust Fine Picture, Picture ADJ, Position, and Contrast automatically, or to switch the screen size to ZOOM mode automatically with the superimposed caption displayed fully only when the picture contains dark areas above and below the picture.

20 ID SELECT

Set the ID number in the remote control. The remote control can then be used only for a display with the same ID number. When several displays are used together they can be controlled individually.

21 CLEAR/SEAMLESS SW

Clears the number set by the ID SELECT button. When the SEAMLESS SW function is operating, this button can be used to switch the input source quickly.

22 Remote control signal transmitter

Transmits the remote control signals.

23 Remote Jack

Insert the plug of the remote cable (The 1/8 Stereo Mini cable) here when using the supplied remote control in the wired condition.

Basic Operations

POWER

To turn the unit ON and OFF:

1. Plug the power cord into an active AC power outlet.
2. Press the Power button (on the unit).
The monitor's POWER/STANDBY indicator turns red and the standby mode is set.
3. Press the POWER ON button (on the remote control) to turn on the unit.
The monitor's POWER/STANDBY indicator will light up (green) when the unit is on.
4. Press the POWER STANDBY button (on the remote control) or the Power button (on the unit) to turn off the unit.
The monitor's POWER/STANDBY indicator turns red and the standby mode is set (only when turning off the unit with the remote control).

VOLUME

To adjust the sound volume:

1. Press and hold the VOLUME \oplus button (on the remote control or the unit) to increase to the desired level.
2. Press and hold the VOLUME \ominus button (on the remote control or the unit) to decrease to the desired level.

MUTE

To mute the audio:

Press the MUTE button on the remote control to mute the audio; press again to restore.


DISPLAY

To check the settings:


1. The screen changes each time the DISPLAY button is pressed.
2. If the button is not pressed for approximately three seconds, the menu turns off.

DIGITAL ZOOM

Digital zoom specifies the picture position and enlarges the picture.

1. (Be sure ZOOM NAV is off.)
Press the POINTER button to display the pointer. ()

To change the size of the picture:

Press the ZOOM+ button and enlarge the picture.
The pointer will change to resemble a magnifying glass. ()

A press of the ZOOM- button will reduce the picture and return it to its original size.

To change the picture position:

- Select the position with the \blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright buttons.
2. Press the POINTER button to delete the pointer.

AUTO ADJUST

To adjust the size or quality of the picture automatically:

Press the AUTO ADJUST button.

Information

■ AUTO ADJUST ON setting

When RGB (still picture) input is selected:
Fine Picture, Picture ADJ, Position, and Contrast will be adjusted automatically.

When RGB (motion picture), VIDEO, or Y/Pb/Pr (component) input is selected: The screen size switches to ZOOM mode automatically with the superimposed caption displayed fully only when the picture contains dark areas above and below the picture.

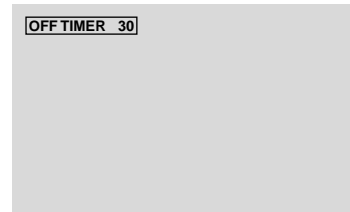
OFF TIMER

To set the off timer:

The off timer can be set to turn the power off after 30, 60, 90 or 120 minutes.

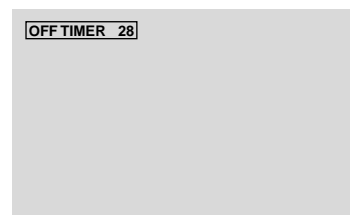
1. Press the OFF TIMER button to start the timer at 30 minutes.
2. Press the OFF TIMER button to the desired time.
3. The timer starts when the menu turns off.

→ 30 → 60 → 90 → 120 → 0



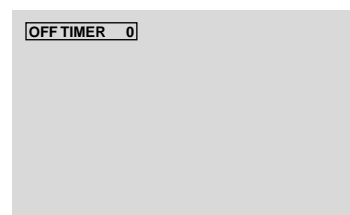
To check the remaining time:

1. Once the off timer has been set, press the OFF TIMER button once.
2. The remaining time is displayed, then turns off after a few seconds.
3. When five minutes remain the remaining time appears until it reaches zero.



To cancel the off timer:

1. Press the OFF TIMER button twice in a row.
2. The off timer is canceled.



Note:

*After the power is turned off with the off timer ...
A slight current is still supplied to the monitor. When you are leaving the room or do not plan to use the system for a long period of time, turn off the power of the monitor.*

WIDE Operations

Wide Screen Operation (manual)

With this function, you can select one of six screen sizes.

When viewing videos or digital video discs

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

The screen size switches as follows:

→ **NORMAL** → **FULL** → **STADIUM** → **ZOOM** → **2.35:1** → **14:9** →

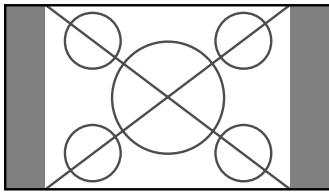
When a 720P or 1080I signal is input:

FULL ↔ **2.35:1**

When displaying enhanced split screen:

NORMAL ↔ **FULL**

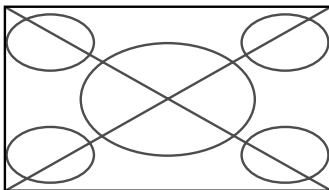
NORMAL size screen (4:3)



The normal size screen is displayed.

- * The picture has the same size as video pictures with a 4 : 3 aspect ratio.

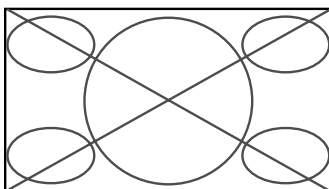
FULL size screen



The image is expanded in the horizontal direction.

- * Images compressed in the horizontal direction ("squeezed images") are expanded in the horizontal direction and displayed on the entire screen with correct linearity. (Normal images are expanded in the horizontal direction.)

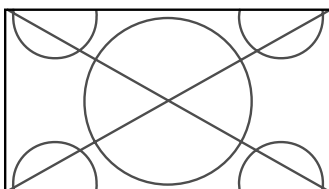
STADIUM size screen



The picture is expanded in the horizontal and vertical directions at different ratios.

- * Use this for watching normal video programs (4:3) with a wide screen.

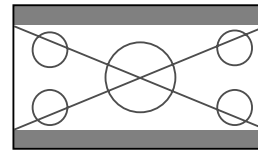
ZOOM size screen



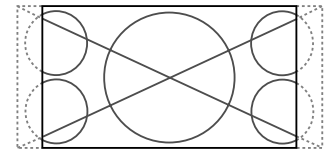
The picture is expanded in the horizontal and vertical direction, maintaining the original proportions.

- * Use this for theater size (wide) movies, etc.

2.35:1 size screen



Original image



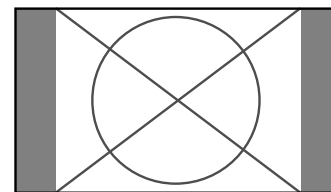
Information is lost on both sides.

The squeezed film image is expanded to fulfill the entire screen at a ratio of 2.35:1. Black bands do not appear at the top and bottom but information is lost on the left and right margins.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P, 720P, 1080I) or RGB (525P or 625P signal from a scan converter).

- * If black bands appear on the top and bottom in the full size screen, select the 2.35:1 size screen to avoid phosphor burn-in.

14:9 size screen



The image is displayed at a 14:9 aspect ratio.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P) or RGB (525P or 625P signal from a scan converter).



Note:

Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

Wide Screen Operation with Computer Signals

Switch to the wide screen mode to expand the 4 : 3 image to fill the entire screen.

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

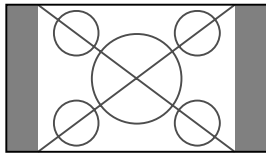
The screen size switches as follows:

→ **NORMAL** → **FULL** → **ZOOM**

When displaying enhanced split screen:

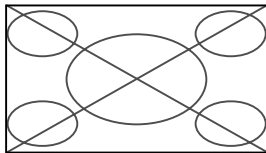
NORMAL ↔ **FULL**

NORMAL size screen (4:3 or SXGA 5:4)



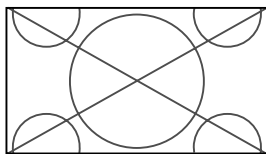
The picture has the same size as the normal computer image.

FULL size screen



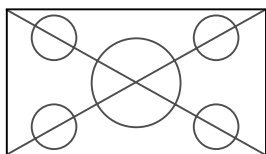
The image is expanded in the horizontal direction.

ZOOM size screen



When wide signals are input.

FULL size screen

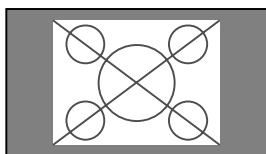


When “PICTURE SIZE” is set to “OFF”

The screen size switches as follows:

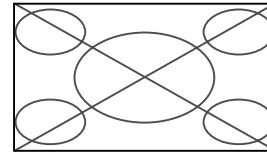
→ **TRUE** → **FULL** → **ZOOM**

TRUE size screen (VGA, SVGA 4:3)



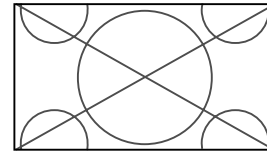
The image is true resolution.

FULL size screen



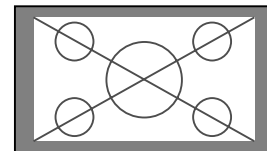
The image is expanded in the horizontal and vertical direction.

ZOOM size screen



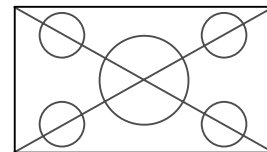
When wide signals are input.

TRUE



The image is true resolution.

FULL



Information

■ Supported resolution

See page E-2 of Model Information for details on the display output of the various VESA signal standards supported by the monitor.

■ “PICTURE SIZE” setting

When the setting of “PICTURE SIZE” is OFF, the size of RGB-input pictures will be TRUE in place of NORMAL.

■ When 852 (848) dot × 480 line wide VGA* signals with a vertical frequency of 60 Hz and horizontal frequency of 31.7 (31.0) kHz are input

Select an appropriate setting for RGB SELECT mode referring to the “Table of Signals Supported” on page E-2 of Model Information.

* “VGA”, “SVGA” and “SXGA” are registered trademarks of IBM, Inc. of the United States.

Note:

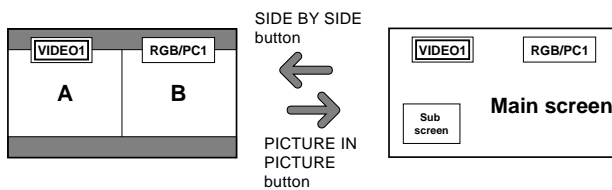
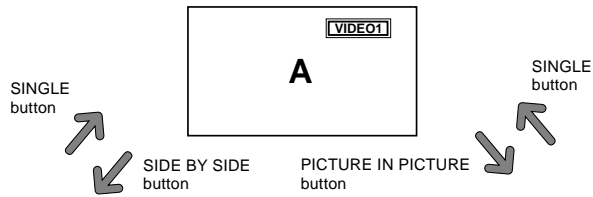
Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

SPLIT SCREEN Operations

Showing a couple of pictures on the screen at the same time

* An RGB-input picture may not be displayed in these modes, depending on the input signal specifications.

1. Press the button to select a screen mode from among single mode, side-by-side, and picture-in-picture.



Note:

Picture A and B on the above screen are not always of the same height.

Information

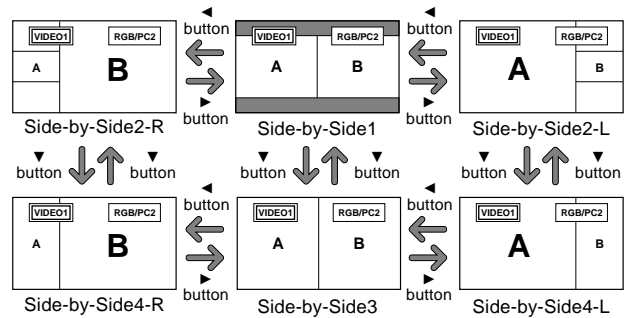
Split screen operations may not function depending on the combination of input signals. In the table below, "○" means Yes, "×" means No.

	Pictures displayed on the right/main screen (Select1)							
	VIDEO1	VIDEO2	VIDEO3	HD/DVD1	HD/DVD2	RGB/PC1	RGB3	SCART1-3
Pictures displayed on the left/sub screen (Select2)								
VIDEO1	×	×	×	○	○	○	○	×
VIDEO2	×	×	×	○	○	○	○	×
VIDEO3	×	×	×	○	○	○	○	×
HD/DVD1	○	○	○	×	○	○	○	○
HD/DVD2	○	○	○	○	×	○	○	1.2:×
RGB2	○	○	○	○	○	×	○	1.2:○
RGB/PC1	○	○	○	○	○	×	○	3:×
RGB3	○	○	○	○	○	○	×	○
SCART1-3	×	×	×	○	1.2:×	1.2:○	○	×
					3:○	3:×		

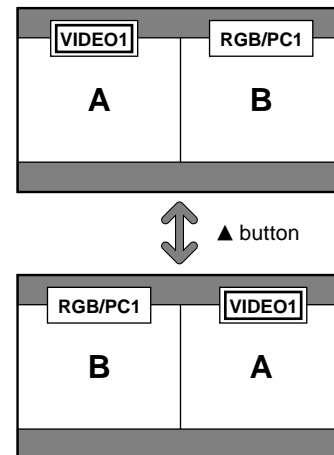
■ Split screen operations may not function depending on the type of the RGB signals.

Operations in the Side-by-side mode

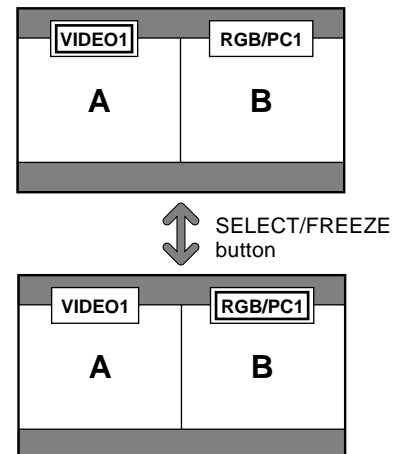
To change the picture size, press the cursor ◀▶ or ▼ button.



To swap the picture on the right and the left, press the cursor ▲ button.

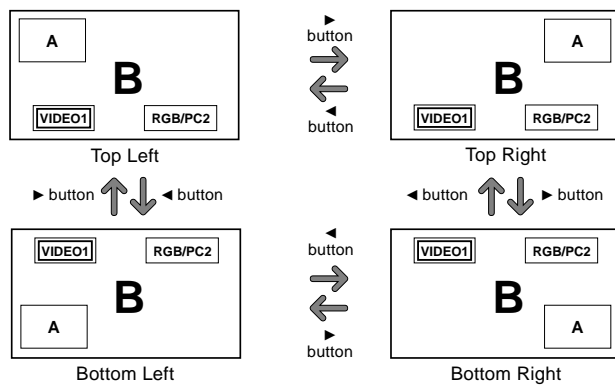


To make the desired picture active, press the SELECT/FREEZE button.

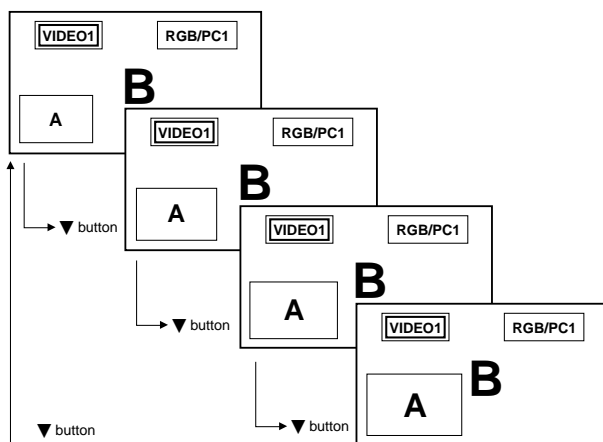


Operations in the Picture-in-picture mode

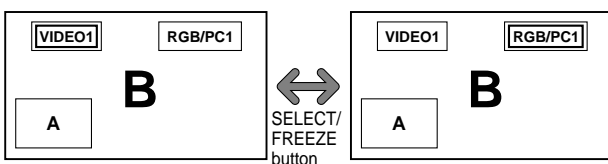
To move the position of the sub screen, press the cursor ◀ or ▶ button.



To change the size of the sub screen, press the ▼ button.



To make the desired picture active, press the SELECT/FREEZE button.



Selecting the input signals to be displayed

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Press the RGB/PC, VIDEO, or DVD/HD button. Each press of the button changes the selection of the input signal. The INPUT SELECT button on the monitor can also be used to change the selection.

Zooming up pictures

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Use the POINTER button and the ZOOM + / - button to enlarge the picture. For details, see "DIGITAL ZOOM" on page E-10.

Adjusting the OSM controls

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Press the MENU/ENTER button to display the MAIN MENU.
3. Adjust the setting to your preference. For details, see "OSM (On Screen Menu) Controls" on page E-15.

Note:

During enhanced split screen mode, some functions of OSM controls are not available.

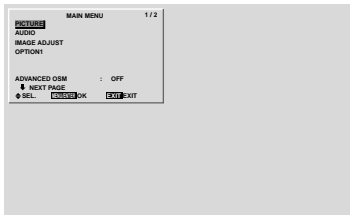
OSM(On Screen Menu) Controls

Menu Operations

The OSM window is displayed with respect to the screen as shown on the diagram.

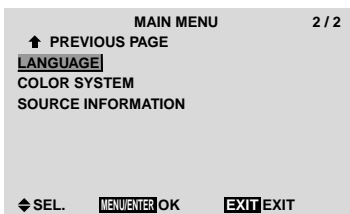
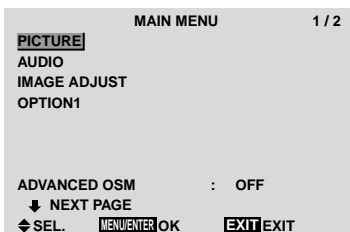
- * Depending on the screen's mode, the OSM may be displayed differently.

In the explanation, the OSM section is shown close up.

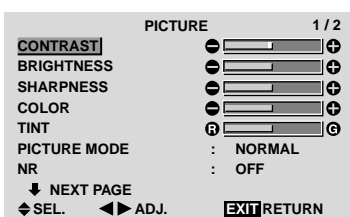


The following describes how to use the menus and the selected items.

1. Press the MENU/ENTER button on the remote control to display the MAIN MENU.



2. Press the cursor buttons ▲ ▼ on the remote control to highlight the menu you wish to enter.
3. Press the MENU/ENTER button on the remote control to select a sub menu or item.



4. Adjust the level or change the setting of the selected item by using the cursor buttons ◀ ▶ on the remote control.
5. The adjustments or the settings that are stored in memory. The change is stored until you change it again.
6. Repeat steps 2 – 5 to adjust an additional item, or press the EXIT button on the remote control to return to the main menu.

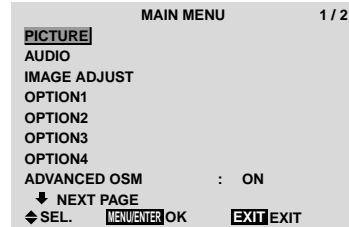
- * When adjusting using the bar at the bottom of the screen, press the ◀ or ▶ button within 5 seconds. If not, the current setting is set and the previous screen appears.

Note: The main menu disappears by pressing the EXIT button.

Information

■ Advanced menu mode


When “ADVANCED OSM” is set to “ON” in the main menu (1/2), full menu items will be shown.



Menu Tree

 : Shaded areas indicate the default value.

— ◀ → + : Press the ◀ or ▶ button to adjust. The default value is at the center.

 : Menu items in a ruled box are available when the ADVANCED OSM is set to ON.

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
PICTURE	CONTRAST	— ◀ → + 0 ◀ 52 → 72			YES	E-18
	BRIGHTNESS	— ◀ → + 0 ◀ 32 → 64			YES	E-18
	SHARPNESS	— ◀ → + 0 ◀ 16 → 32			YES	E-18
	COLOR	— ◀ → + 0 ◀ 32 → 64			YES	E-18
	TINT	R ◀ → G 0 ◀ 32 → 64			YES	E-18
	PICTURE MODE	BRIGHT/ NORMAL /THEAT.1/THEAT.2/DEFAULT			YES	E-18
	NR	OFF /NR-1/NR-2/NR-3			YES	E-18
	COLOR TEMP	LOW/MID LOW/ MID /HIGH			YES	E-18
	WHITE BALANCE	GAIN RED — ◀ → + 0 ◀ → 70			YES	E-19
		GAIN GREEN — ◀ → + 0 ◀ → 70			YES	E-19
		GAIN BLUE — ◀ → + 0 ◀ → 70			YES	E-19
		BIAS RED — ◀ → + 0 ◀ → 70			YES	E-19
		BIAS GREEN — ◀ → + 0 ◀ → 70			YES	E-19
		BIAS BLUE — ◀ → + 0 ◀ → 70			YES	E-19
		RESET OFF ◀ → ON			YES	E-19
	GAMMA	1 ◀ → 2 ◀ → 4			YES	E-19
	LOW TONE	AUTO ◀ → 1 ◀ → 3			YES	E-19
	COLOR TUNE	RED Y ◀ → M 0 ◀ → 64			YES	E-19
		GREEN C ◀ → Y 0 ◀ → 64			YES	E-19
		BLUE M ◀ → C 0 ◀ → 64			YES	E-19
		YELLOW G ◀ → R 0 ◀ → 64			YES	E-19
		MAGENTA R ◀ → B 0 ◀ → 64			YES	E-19
		CYAN B ◀ → G 0 ◀ → 64			YES	E-19
		RESET OFF ◀ → ON			YES	E-19

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
AUDIO	BASS	— ◀ → + 0 ◀ 13 → 26			YES	E-20
	TREBLE	— ◀ → + 0 ◀ 13 → 26			YES	E-20
	BALANCE	L ◀ → R -22 ◀ 0 → +22			YES	E-20
	AUDIO INPUT1	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	E-20
	AUDIO INPUT2	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	E-20
	AUDIO INPUT3	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	E-20

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
IMAGE ADJUST	ASPECT MODE	NORMAL/FULL/STADIUM/ZOOM/2.35:1/14:9			—	E-20
	V-POSITION	— ◀ → + -64 ◀ 0 → +64			YES	E-20
	H-POSITION	— ◀ → + -128 ◀ 0 → +127			YES	E-20
	V-HEIGHT	— ◀ → + 0 ◀ → 64			YES	E-20
	H-WIDTH	— ◀ → + 0 ◀ → 64			YES	E-20
	AUTO PICTURE	OFF ◀ → ON*2			NO	E-20
	FINE PICTURE*1	— ◀ → + *2 0 ◀ → 64			YES	E-20
	PICTURE ADJ.*1	— ◀ → + *2 0 ◀ → 128			YES	E-20

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION1	OSM	DISPLAY OSM	OFF ◀ → ON		YES	E-21
		OSM ADJ.	1 ◀ → 6		YES	E-21
		OSM ANGLE	H ◀ → V		YES	E-21
		OSM ORBITER	OFF ◀ → ON		YES	E-21
		OSM CONTRAST	LOW ◀ → NORMAL		YES	E-21
		BNC INPUT	RGB ◀ → COMP. ◀ → SCART1 ◀ → SCART2		YES	E-21
	D-SUB INPUT	RGB ◀ → SCART3			—	E-21
	RGB SELECT	AUTO /STILL/MOTION/WIDE1/WIDE2/WIDE3/DTV			YES	E-21
	HD SELECT	1080B /1035I/1080A			NO	E-22
	INPUT SKIP	OFF ◀ → ON			YES	E-22
	ALL RESET	OFF ◀ → ON			—	E-22

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION2	PWR. MGT.	OFF↔ON			YES	E-23
	CINEMA MODE	OFF↔ON			YES	E-23
	LONG LIFE	PLE	AUTO/LOCK 1/LOCK 2/LOCK 3		YES	E-23
		ORBITER	AUTO 1		YES	E-24
			AUTO 2		YES	E-24
			MANUAL	H-DOT/V-LINE/TIME	YES	E-24
			OFF		YES	E-24
	INVERSE	OFF			YES	E-24
		ON	WORKING TIME/WAITING TIME		YES	E-24
		WHITE			YES	E-24
	SCREEN WIPER	OFF			YES	E-25
		ON	WORKING TIME/WAITING TIME/SPEED		YES	E-25
	SOFT FOCUS	OFF/1/2/3/4			YES	E-25
	GRAY LEVEL	0↔3↔15			YES	E-25
	S1/S2	AUTO↔OFF			YES	E-25
	PICTURE SIZE	OFF↔ON			YES	E-26
	DVI SET UP	PLUG/PLAY	PC↔STB/DVD		NO	E-26
		BLACK LEVEL	LOW↔HIGH		NO	E-26

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION3	TIMER	PRESENT TIME	SUMMER TIME	OFF↔ON	NO	E-26
			DAY/HOUR/MINUTES		NO	E-26
		PROGRAM	OFF		YES	E-27
			ON	DATE/ON/OFF(HOUR, MINUTE)/INPUT/FUNCTION	YES	E-27
		MULTI REPEAT	OFF		YES	E-27
			ON	MULTI MODE/WORK TIME/INPUT MODE	YES	E-27
		PWR. ON MODE	LAST /MULTI/ VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3		YES	E-28
		CONTROL LOCK	OFF↔ON		YES	E-28
		IR REMOTE	OFF↔ON		YES	E-28
		LOOP OUT	OFF↔ON		YES	E-28
	ID NUMBER	ALL↔1↔256			YES	E-29
	VIDEO WALL	DIVIDER	OFF/1/4/9/16/25		YES	E-29
		POSITION	No.1↔No.4/No.7↔No.15/No.16↔No.31/No.32↔No.56		—	E-29
		DISP. MODE	SPLIT↔BLANK		YES	E-30
		AUTO ID	OFF↔ON		YES	E-30
		IMAGE ADJUST	ASPECT MODE	NORMAL/FULL/STADIUM/ZOOM/2.35:1/14:9	—	E-30
			V-POSITION	←→+ -64↔0↔+64	YES	E-30
			H-POSITION	←→+ -128↔0↔+127	YES	E-30
			V-HEIGHT	←→+ 0↔64	YES	E-30
			H-WIDTH	←→+ 0↔64	YES	E-30
			AUTO PICTURE	OFF↔ON*2	NO	E-30
			FINE PICTURE*1	←→+ *2 0↔64	YES	E-30
			PICTURE ADJ.*1	←→+ *2 0↔128	YES	E-30
		P. ON DELAY	OFF/ON/MODE1/MODE2		YES	E-30
		PLE LINK	OFF↔ON		YES	E-31
		REPEAT TIMER	OFF		YES	E-31
			ON	DIVIDER/SOURCE/WORK TIME	YES	E-31

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION4	SUB P. DETECT	OFF↔AUTO			YES	E-32
	ZOOM NAV	OFF↔S BY S↔BTM LFT↔BTM RGT↔TOP RGT↔TOP LFT			YES	E-32
	PIC FREEZE	OFF↔S BY S1↔S BY S2↔BTM LFT↔BTM RGT↔TOP RGT↔TOP LFT			YES	E-32
	SEAMLESS SW	OFF			YES	E-33
		ON	SELECT1/SELECT2		YES	E-33

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
ADVANCED OSM	OFF↔ON				YES	E-33
LANGUAGE	ENGLISH/DEUTSCH/FRANÇAIS/ESPAÑOL/ITALIANO/SVENSKA/中文/РУССКИЙ				NO	E-33
COLOR SYSTEM	AUTO/3.58NTSC/4.43 NTSC/PAL/PAL 60/PAL-N/PAL-M/SECAM				NO	E-34
SOURCE INFORMATION	—				—	E-34

*1 Only when AUTO PICTURE is OFF

*2 RGB/PC only

Information

■ Restoring the factory default settings

Select "ALL RESET" under the OPTION1 menu. Note that this also restores other settings to the factory defaults.

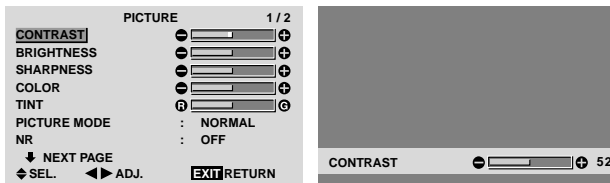
Picture Settings Menu

Adjusting the picture

The contrast, brightness, sharpness, color and tint can be adjusted as desired.

Example: Adjusting the contrast

On “CONTRAST” of “PICTURE” menu, adjust the contrast.



Note: If “CAN NOT ADJUST” appears ...
When trying to enter the PICTURE submenu, make sure PICTURE MODE is not set to DEFAULT.

Information

Picture adjustment screen

CONTRAST: Changes the picture’s white level.

BRIGHTNESS: Changes the picture’s black level.

SHARPNESS: Changes the picture’s sharpness.
Adjusts picture detail of VIDEO display.

COLOR: Changes the color density.

TINT: Changes the picture’s tint. Adjust for natural colored skin, background, etc.

Adjusting the computer image

Only the contrast and brightness can be adjusted when a computer signal is connected.

Restoring the factory default settings

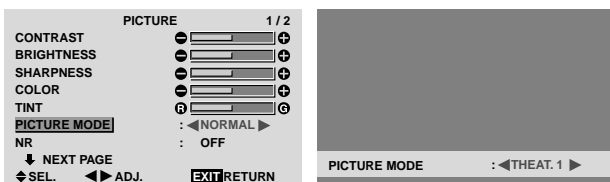
Select “DEFAULT” under the “PICTURE MODE” settings.

Setting the picture mode according to the brightness of the room

There are four picture modes that can be used effectively according to the environment in which you are viewing the display.

Example: Setting the “THEAT. 1” mode

On “PICTURE MODE” of “PICTURE” menu, select “THEAT. 1”.



Information

Types of picture modes

THEAT. 1, 2: Set this mode when watching video in a dark room.

This mode provides darker, finer pictures, like the screen in movie theaters.

For a darker image, select THEAT. 2.

NORMAL: Set this mode when watching video in a bright room.

This mode provides dynamic pictures with distinct differences between light and dark sections.

BRIGHT: This mode provides brighter pictures than NORMAL.

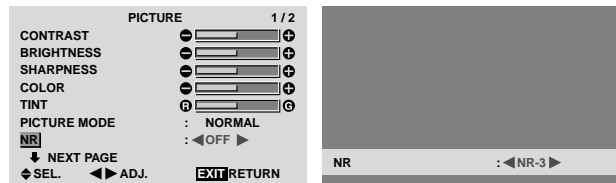
DEFAULT: Use this to reset the picture to the factory default settings.

Reducing noise in the picture

Use these settings if the picture has noise due to poor reception or when playing video tapes on which the picture quality is poor.

Example: Setting “NR-3”

On “NR” of “PICTURE” menu, select “NR-3”.



Information

NR

* “NR” stands for Noise Reduction.

* This function reduces noise in the picture.

Types of noise reduction

There are three types of noise reduction. Each has a different level of noise reduction.

The effect becomes stronger as the number increases (in the order NR-1 → NR-2 → NR-3).

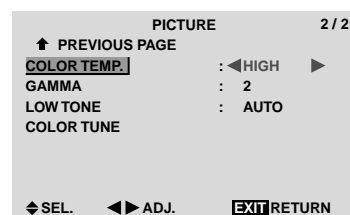
OFF: Turns the noise reduction function off.

Setting the color temperature

Use this procedure to set color tone produced by the plasma display.

Example: Setting “HIGH”

On “COLOR TEMP.” of “PICTURE” menu, select “HIGH”.



Information

Setting the color temperature

LOW: Redder

MID LOW: Slightly red

MID: Standard (slightly bluer)

HIGH: Bluer

Adjusting the color to the desired level

Use this procedure to adjust the white balance for each color temperature to achieve the desired color quality.

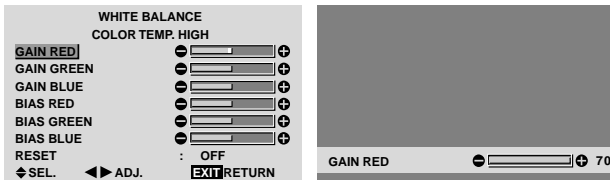
Example: Adjusting the “GAIN RED” of “HIGH” color temperature

Set “ADVANCED OSM” to “ON” in the main menu (1/2), then perform the following operations.

On “COLOR TEMP.” of “PICTURE” menu, select “HIGH”, then press the MENU/ENTER button.

The “WHITE BALANCE” screen appears.

On “GAIN RED”, adjust the white balance.



Information

■ Adjusting the white balance

GAIN R/G/B: White balance adjustment for white level

BIAS R/G/B: White balance adjustment for black level

RESET: Resets settings to the factory default values.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

■ Restoring the factory default settings

Select “RESET” under the WHITE BALANCE menu.

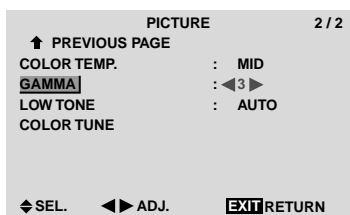
Changing the Gamma Curve

This feature adjusts the brightness of the midtone areas while keeping shadows and highlights unchanged.

Example: Setting “3”

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “GAMMA” of “PICTURE” menu, select “3”.



Information

■ GAMMA settings

The picture becomes darker as the number increases (in the sequence of 1, 2, 3, 4).

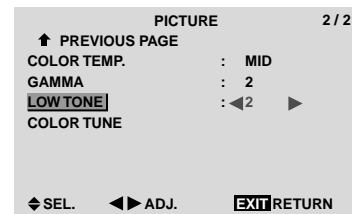
Making the Low Tone adjustments

This feature allows more detailed tone to be reproduced especially in the dark area.

Example: Setting “2”

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “LOW TONE” of “PICTURE” menu, select “2”.



Information

■ LOW TONE settings

AUTO: Will automatically appraise the picture and make adjustments.

1: Will apply the dither method suitable for still pictures.

2: Will apply the dither method suitable for motion pictures.

3: Will apply the error diffusion method.

Adjusting the colors

Use this procedure to adjust hue and color density for red, green, blue, yellow, magenta and cyan.

Such adjustments will not affect the other colors.

You can accentuate the green color of trees, the blue of the sky, etc.

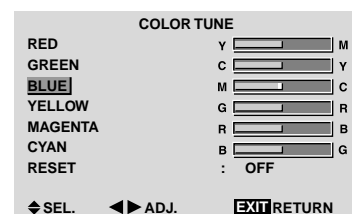
Example: Adjusting the color tune for blue

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “PICTURE” menu, select “COLOR TUNE”, then press the MENU/ENTER button.

The “COLOR TUNE” screen appears.

On “BLUE” of “COLOR TUNE”, adjust the color tune.



Information

■ COLOR TUNE settings

RED: Makes red's adjustment

GREEN: Makes green's adjustment

BLUE: Makes blue's adjustment

YELLOW: Makes yellow's adjustment

MAGENTA: Makes magenta's adjustment

CYAN: Makes cyan's adjustment

RESET: Resets settings to the factory default value.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

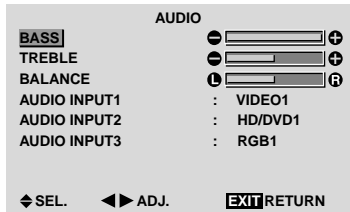
Audio Settings Menu

Adjusting the treble, bass and left/right balance and audio input select

The treble, bass and left/right balance can be adjusted to suit your tastes.

Example: Adjusting the bass

On “BASS” of “AUDIO” menu, adjust the bass.



Note : If “CAN NOT ADJUST” appears...
Set “AUDIO INPUT” on the AUDIO menu correctly.

Information

■ Audio settings menu

BASS: Controls the level of low frequency sound.

TREBLE: Controls the level of high frequency sound.

BALANCE: Controls the balance of the left and right channels.

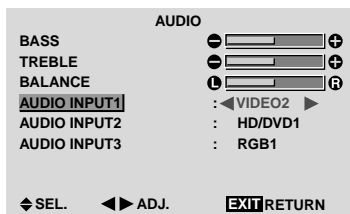
Setting the allocation of the audio connectors

Setting the AUDIO 1, 2, and 3 connectors to the desired input.

Example: Setting “AUDIO INPUT1” to “VIDEO 2”

On “AUDIO INPUT1” of “AUDIO” menu, select “VIDEO2”.

The available sources depend on the settings of input.



Information

■ AUDIO INPUT

A single audio input cannot be selected as the audio channel for more than one input terminal.

Image Adjust Settings Menu

Adjusting the Position, Size, Fine Picture, Picture Adj

The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position in the normal mode

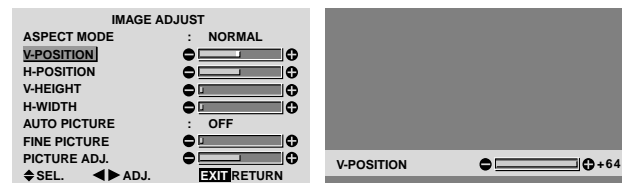
On “V-POSITION” of “IMAGE ADJUST” menu, adjust the position.

The mode switches as follows each time the ◀ or ▶ button is pressed:

NORMAL ↔ FULL

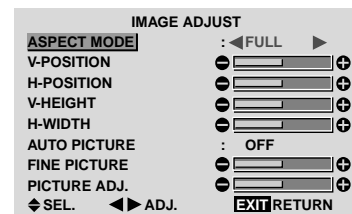
* The mode can also be switched by pressing the WIDE button on the remote control.

* The settings on the IMAGE ADJUST menu are not preset at the factory.



Information

■ When “AUTO PICTURE” is “OFF”



When Auto Picture is off, the Fine Picture and the Picture ADJ. items are displayed so that you can adjust them.

■ Adjusting the Auto Picture

ON: The Picture ADJ., Fine Picture and Position adjustments are made automatically.

Not available for digital ZOOM.

OFF: The Picture ADJ., Fine Picture and Position adjustments are made manually.

* If FINE PICTURE can't be adjusted, set Auto Picture to OFF and adjust manually.

■ Adjusting the position of the image

V-POSITION: Adjusts the vertical position of the image.

H-POSITION: Adjusts the horizontal position of the image.

V-HEIGHT: Adjusts the vertical size of the image. (Except for STADIUM mode)

H-WIDTH: Adjusts the horizontal size of the image. (Except for STADIUM mode)

FINE PICTURE*: Adjusts for flickering.

PICTURE ADJ.*: Adjusts for striped patterns on the image.

* The Picture ADJ. and Fine Picture features are available only when the “Auto Picture” is off.

* The AUTO PICTURE, FINE PICTURE and PICTURE ADJ. are available only for RGB signals.

But, these features are not available for moving pictures on VIDEO, HD/DVD or RGB.

Option1 Settings Menu

Setting the on-screen menu

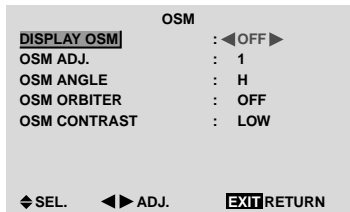
This sets the position of the menu, the display format (horizontal or vertical) etc.

Example: Turning the DISPLAY OSM off

On "OPTION1" menu, select "OSM", then press the MENU/ENTER button.

The "OSM" menu appears.

On "DISPLAY OSM" of "OSM" menu, select "OFF".



Information

■ DISPLAY OSM settings

ON: The on-screen menu appears.

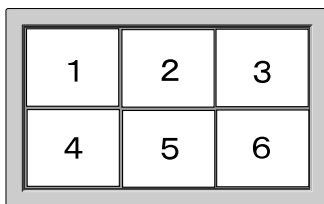
OFF: The on-screen menu does not appear.

If you press the DISPLAY button on the remote control for more than 3 seconds the main menu will appear and can be set (although it is not ON).

■ OSM ADJUST settings

Adjusts the position of the menu when it appears on the screen.

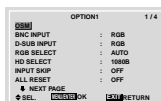
The position can be set between 1 to 6.



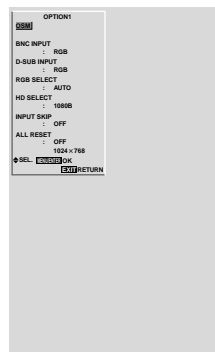
■ OSM ANGLE settings

Sets the display format (landscape "H" or portrait "V"). When the unit is installed vertically set the OSM ANGLE at "V".

"H"



"V"



■ OSM ORBITER settings

ON: The position of the menu will be shifted by eight dots each time OSM is displayed.

OFF: OSM will be displayed at the same position.

■ OSM CONTRAST settings

NORMAL: OSM brightness is set to normal.

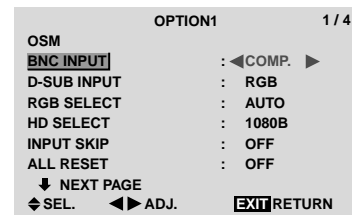
LOW: OSM brightness is set to lower.

Setting the BNC connectors

Select whether to set the input of the 5 BNC connectors to RGB, component or SCART1,2.

Example: Set the BNC INPUT mode to "COMP."

On "BNC INPUT" of "OPTION1" menu, select "COMP".



Information

■ BNC INPUT Settings

RGB: Use the 5BNC terminals for RGB input.

COMP.: Use the 3BNC terminals for component input.

SCART1: Use the 4BNC terminals for RGB with composite sync. See page E-8.

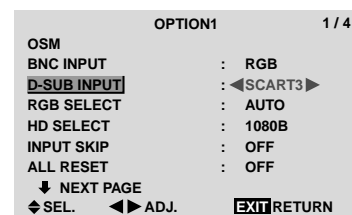
SCART2: Use the 3BNC terminals for RGB and the VIDEO1 terminal for composite sync. See page E-8.

Setting the RGB1 connector

Select one of the signals being transmitted to the RGB1 terminal.

Example: Set the D-SUB INPUT mode to "SCART3"

On "D-SUB INPUT" of "OPTION1" menu, select "SCART3".



Information

■ D-SUB INPUT Settings

RGB: Use the D-SUB terminal for RGB input.

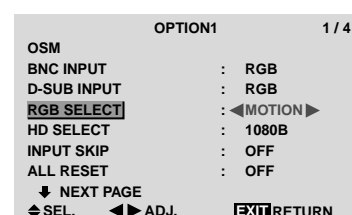
SCART3: Use the D-SUB terminal for RGB signal fed from SCART. See page E-8.

Setting a computer image to the correct RGB select screen

With the computer image, select the RGB Select mode for a moving image such as (video) mode, wide mode or digital broadcast.

Example: Setting the "RGB SELECT" mode to "MOTION"

On "RGB SELECT" of "OPTION1" menu, select "MOTION".



Information

■ RGB SELECT modes

One of these 7 modes must be selected in order to display the following signals correctly.

AUTO: Select the suitable mode for the specifications of input signals as listed in the table “Computer input signals supported by this system” on page E-2 of Model Information.

STILL: To display VESA standard signals. (Use this mode for a still image from a computer.)

MOTION: The video signal (from a scan converter) will be converted to RGB signals to make the picture more easily viewable. (Use this mode for a motion image from a computer.)

WIDE1: When an 852 dot × 480 line signal with a horizontal frequency of 31.7kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE1.

WIDE2: When an 848 dot × 480 line signal with a horizontal frequency of 31.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE2.

WIDE3: When an 1920 dot × 1200 line signal with a horizontal frequency of 74.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE3.

DTV: Set this mode when watching digital broadcasting (480P).

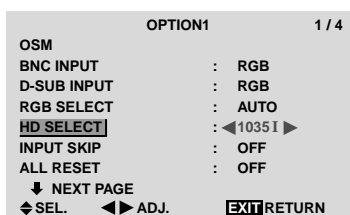
See page E-2 of Model Information for the details of the above settings.

Setting high definition images to the suitable screen size

Use this procedure to set whether the number of vertical lines of the input high definition image is 1035 or 1080.

Example: Setting the “1080B” mode to “1035I”

On “HD SELECT” of “OPTION1” menu, select “1035I”.



Information

■ HD SELECT modes

These 3 modes are not displayed in correct image automatically.

1080B: Standard digital broadcasts

1035I: Japanese “High Vision” signal format

1080A: Special Digital broadcasts (for example : DTC100)

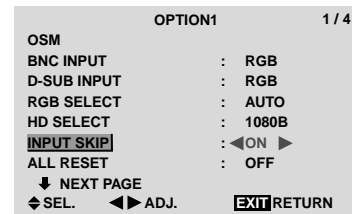
Setting the Input Skip

When this is ON, signals which are not present will be skipped over and only pictures whose signals are being transmitted will be displayed.

This setting is valid only for the INPUT SELECT button on the unit.

Example: Set to “ON”

On “INPUT SKIP” of “OPTION1” menu, select “ON”.



Information

■ INPUT SKIP settings

OFF: Regardless of the presence of the signal, scan and display all signals.

ON: If no input signal is present, skip that signal.

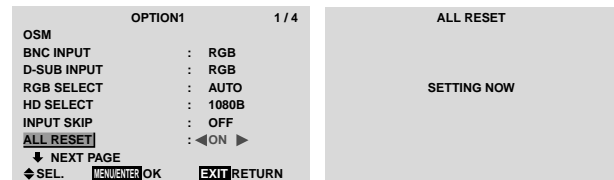
* “SETTING NOW” will appear during the input search.

Resetting to the default values

Use these operations to restore all the settings (PICTURE, AUDIO, IMAGE ADJUST, OPTION1~4, etc) to the factory default values.

Refer to page E-16 for items to be reset.

On “ALL RESET” of “OPTION1” menu, select “ON”, then press the MENU/ENTER button.



When the “SETTING NOW” screen disappears, then all the settings are restored to the default values.

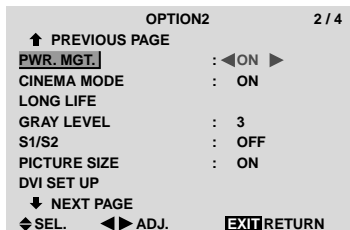
Option2 Settings Menu

Setting the power management for computer images

This energy-saving (power management) function automatically reduces the monitor's power consumption if no operation is performed for a certain amount of time.

Example: Turning the power management function on
Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PWR. MGT." of "OPTION2" menu, select "ON".



Information

■ Power management function

- * The power management function automatically reduces the monitor's power consumption if the computer's keyboard or mouse is not operated for a certain amount of time. This function can be used when using the monitor with a computer.
- * If the computer's power is not turned on or if the computer and selector tuner are not properly connected, the system is set to the off state.
- * For instructions on using the computer's power management function, refer to the computer's operating instructions.

■ Power management settings

ON: In this mode the power management function is turned on.

OFF: In this mode the power management function is turned off.

■ Power management function and POWER/STANDBY indicator

The POWER/STANDBY indicator indicates the status of the power management function. See below for indicator status and description.

POWER/STANDBY indicator

Power management mode	POWER/STANDBY indicator	Power management operating status	Description	Turning the picture back on
On	Green	Not activated.	Horizontal and vertical synchronizing signals are present from the computer.	Picture already on.
Off	Red	Activated.	Horizontal and/or vertical synchronizing signals are not sent from the computer.	Operate the keyboard or mouse. The picture reappears.

Setting the picture to suit the movie

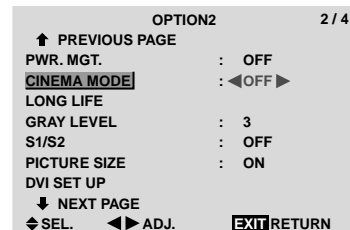
The film image is automatically discriminated and projected in an image mode suited to the picture.

[NTSC, PAL, PAL60, 480I (60Hz), 525I (60Hz), 576I (50Hz), 625I (50Hz), 1035I (60Hz), 1080I (60Hz) only]

Example: Setting the "CINEMA MODE" to "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "CINEMA MODE" of "OPTION2" menu, select "OFF".



Information

■ CINEMA MODE

ON: Automatic discrimination of the image and projection in cinema mode.

OFF: Cinema mode does not function.

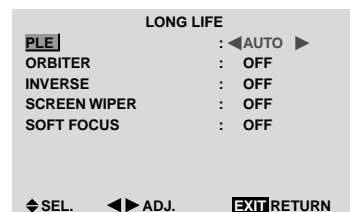
Reducing burn-in of the screen

The brightness of the screen, the position of the picture, positive/negative mode and screen wiper are adjusted to reduce burn-in of the screen.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION2" menu, select "LONG LIFE", then press the MENU/ENTER button.

The "LONG LIFE" screen appears.



PLE (Peak Luminance Enhancement)

Use this to activate the brightness limiter.

Example: Setting "PLE" to "LOCK1"

On "PLE" of "LONG LIFE" menu, select "LOCK1".



Information

■ PLE settings

AUTO: The brightness of the screen is adjusted automatically to suit the picture quality.

LOCK1, 2, 3: Sets maximum brightness.

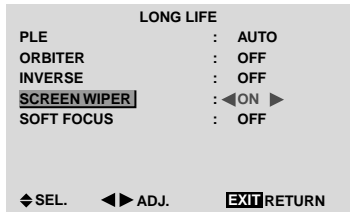
The brightness level decreases in the order of LOCK 1, 2, 3. LOCK 3 provides minimum brightness.

SCREEN WIPER

When this is set to ON, a white vertical bar moves repeatedly from the left and of the screen to the right end at a constant speed.

Example: Setting "SCREEN WIPER" to "ON"

On "SCREEN WIPER" of "LONG LIFE" menu, select "ON".



Information

■ SCREEN WIPER

ON: The white vertical bar appears.

You can set the time by pressing the MENU/ENTER button while "ON" is set.

OFF: Screen wiper mode does not function.

Setting the time for SCREEN WIPER

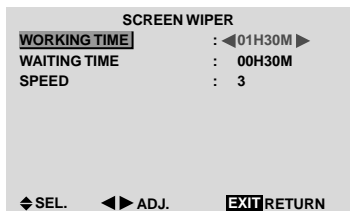
Set a time duration and the speed.

Example: Setting so that the SCREEN WIPER mode starts in 30 minutes and proceeds for one and a half hours.

On "SCREEN WIPER" of "LONG LIFE" menu, select "ON", then press the MENU/ENTER button.

THE "SCREEN WIPER" screen appears.

Adjust the times and speed.



Information

■ Setting the time

WORKING TIME: Set the time duration for "SCREEN WIPER".

When the WORKING TIME is set to "ON" the mode will stay on.

WAITING TIME: Set the standby time until the "SCREEN WIPER" mode starts.

SPEED: Set the moving speed for the "SCREEN WIPER". The speed decreases as the number increases.

* The "WAITING TIME" can not be set when the "WORKING TIME" is ON.

* THE "WORKING TIME" and "WAITING TIME" can be set for up to 12 hours and 45 minutes in units of 3 minutes.

■ To select "ON" for the "WORKING TIME"...

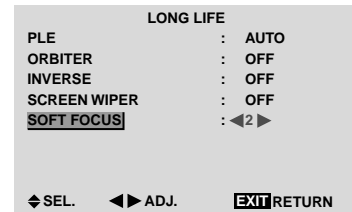
Set the hours of the working time to 0H and the minutes to 0M. "ON" will be displayed.

SOFT FOCUS

Reduces edges and softens the image.

Example: Setting "SOFT FOCUS" to "2"

On "SOFT FOCUS" of "LONG LIFE" menu, select "2".



Information

■ SOFT FOCUS settings

OFF: Turns the SOFT FOCUS function off.

1, 2, 3, 4: Activates the SOFT FOCUS setting. The higher numbers create a softer image.

"SHARPNESS" can not be adjusted in the "PICTURE" menu.

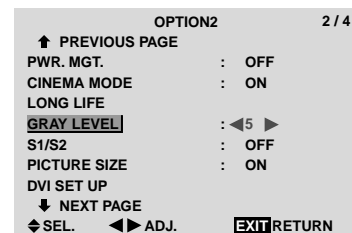
Setting the gray level for the sides of the screen

Use this procedure to set the gray level for the parts on the screen on which nothing is displayed when the screen is set to the 4:3 size.

Example: Setting "GRAY LEVEL" to "5"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "GRAY LEVEL" of "OPTION2" menu, select "5".



Information

■ GRAY LEVEL settings

This adjusts the brightness of the black (the gray level) for the sides of the screen.

The standard is 0 (black). The level can be adjusted from 0 to 15. The factory setting is 3 (dark gray).

Setting the screen size for S1/S2 video input

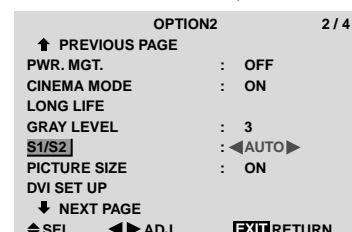
If the S-video signal contains screen size information, the image will be automatically adjusted to fit the screen when this S1/S2 is set to AUTO.

This feature is available only when an S-video signal is input via the VIDEO3 terminal.

Example: Setting the "S1/S2" to "AUTO"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "S1/S2" of "OPTION2" menu, select "AUTO".



Information**■ S1/S2 settings**

AUTO: Adjusts the screen size automatically according to the S1/S2 video signal.

OFF: Turns the S1/S2 function off.

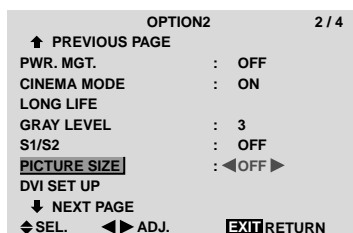
Setting the picture size for RGB input signals

Use this procedure to switch the setting to "ON" or "OFF".

Example: Setting the "PICTURE SIZE" mode to "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PICTURE SIZE" of "OPTION2" menu, select "OFF".

**Setting the signal and black level for DVI signal**

Choose the signal for the DVI connector (PC or STB/DVD) and set the black level.

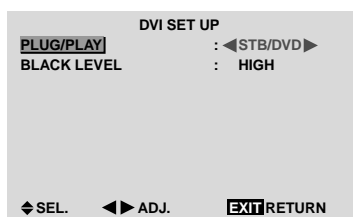
Example: Setting the "PLUG/PLAY" mode to "STB/DVD"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION2" menu, select "DVI SET UP", then press the MENU/ENTER button.

The "DVI SET UP" screen appears.

On "PLUG/PLAY" of "DVI SET UP" menu, select "STB/DVD".

**Information****■ PLUG/PLAY settings**

PC: When connected to the PC signal.

BLACK LEVEL is set to "LOW" automatically.

STB/DVD: When connected to the SET TOP BOX, DVD etc.

BLACK LEVEL is set to "HIGH" automatically.

■ BLACK LEVEL settings

LOW: When connected to the PC signal.

HIGH: When connected to the SET TOP BOX, DVD etc. Change "HIGH" into "LOW" if the black level appears gray.

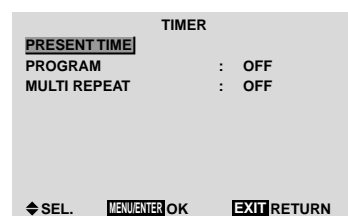
Option3 Settings Menu**Using the timer**

This function sets the monitor to turn ON/OFF automatically at a set time.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION3" menu, select "TIMER", then press the MENU/ENTER button.

The "TIMER" screen appears.

**PRESENT TIME**

This sets the day of the week and present time.

Example: Setting "WEDNESDAY", "22:05"

On "TIMER" menu, select "PRESENT TIME", then press the MENU/ENTER button.

The "PRESENT TIME" screen appears.

Adjust the items.



Select "SET", then press the MENU/ENTER button.

The adjustments are stored and return to the TIMER menu.

* If you press the EXIT button instead of the MENU/ENTER button, the settings can not be made.

**Information****■ PRESENT TIME settings**

SUMMER TIME: Use to set SUMMER TIME.

ON: The present time + 1 hour.

OFF: Cancelled

Day: Set the day of the week (e.g. Sunday).

Hour: Set the hour in the 24-hour format (range 00 to 23).

Minutes: Set the minutes (range 00 to 59).

PROGRAM TIMER

This sets the day and time at which the power will be switched ON/OFF as well as the input mode.

Example: Setting so that the power will be switched on at 8:30 A.M., Monday, displaying RGB2 source, and switched off at 10:30 A.M.

On "PROGRAM" of "TIMER" menu, select "ON", then press the MENU/ENTER button.

The "PROGRAM TIMER" screen appears.

Adjust the items.

Each mode switches each time the ZOOM +/- button is pressed.

PROGRAM TIMER				
DATE	ON	OFF	INPUT	FUNCTION
MON 08:30	10:30	RGB2	INVERSE	
TUE	---	18:15	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
*FRI 08:30	10:00	HD/DVD1	---	---
---	---	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
* 15:30	16:00	RGB1	---	---
◀▶SEL. ZOOM ADJ. EXIT RETURN				

Information

■ PROGRAM TIMER settings

DATE: Set the day of the week (e.g. Sunday).

ON (hour, minutes): Set the time at which the power will be turned on in the 24-hour format.

OFF (hour, minutes): Set the time at which the power will be turned off in the 24-hour format.

INPUT: Set the input mode that will be displayed when the timer is on.

FUNCTION: Set the LONG LIFE function.

■ To reset the program

Align the cursor with the DATE field that you wish to reset, then press the CLEAR/SEAMLESS SW button.

■ To reset the data

Align the cursor with the field (ON/OFF/INPUT/FUNCTION) that you wish to reset, then press the CLEAR/SEAMLESS SW button.

■ Special characters in the PROGRAM TIMER screen

PROGRAM TIMER				
DATE	ON	OFF	INPUT	FUNCTION
MON 08:30	10:30	RGB2	INVERSE	
TUE	---	18:15	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
*FRI 08:30	10:00	HD/DVD1	---	---
---	---	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
* 15:30	16:00	RGB1	---	---
◀▶SEL. ZOOM ADJ. EXIT RETURN				

- An asterisk "*" in the DATE field

An asterisk "*" means "every". For example, "*FRI" means every Friday and "*" means everyday.

- A hyphen "-" in the ON field or OFF field

If any hyphen remains in the ON field or OFF field, the FUNCTION can not be set.

- A hyphen "-" in the FUNCTION field

A hyphen "-" means last mode (the mode that was last selected at the time the power was switched off).

■ To set MULTI INPUT

- Set the INPUT button to "MULTI", then press the MENU/ENTER button.

The "MULTI SCREEN SETTING" will appear on the screen.

- Use the ▲ and ▼ buttons to select "MULTI MODE", then use the ◀ and ▶ buttons to choose from "SINGLE", "SIDE BY SIDE1~3" and "PICTURE IN PICTURE (BOTTOM LEFT~TOP LEFT)".
- Use the ▲ and ▼ buttons to select "MAIN"/"SUB" and "LEFT"/"RIGHT", then use the ◀ and ▶ buttons to choose from "VIDEO1~3", "HD/DVD1~2" and "RGB1~3".

PROGRAM TIMER				
DATE	ON	OFF	INPUT	FUNCTION
MON 08:30	10:30	MULTI	INVERSE	
TUE	---	18:15	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
*FRI 08:30	10:00	HD/DVD1	---	---
---	---	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
* 15:30	16:00	RGB1	---	---
◀▶SEL. ZOOM ADJ. EXIT RETURN				

PICTURE IN PICTURE

PROGRAM TIMER	
MULTI SCREEN SETTING	
MULTI MODE	: BOTTOM LEFT
INPUT MODE	
MAIN	: RGB/PC1
SUB	: VIDEO1
◀▶SEL. ADJ. EXIT RETURN	

SIDE BY SIDE

PROGRAM TIMER	
MULTI SCREEN SETTING	
MULTI MODE	: SIDE BY SIDE1
INPUT MODE	
LEFT	: RGB/PC1
RIGHT	: VIDEO1
◀▶SEL. ADJ. EXIT RETURN	

MULTI REPEAT

Two repeat timers are available.

Each timer has MULTI MODE, WORK TIME and INPUT MODE functions.

Example:

TIMER1 is set to display RGB1 (MAIN) and VIDEO1 (SUB) for 4 hours in picture-in-picture mode.

TIMER2 is set to display RGB3 (LEFT) and HD/DVD1 (RIGHT) for 2.5 hours in side-by-side mode.

On "MULTI REPEAT" of "TIMER", select "ON", then press the MENU/ENTER button.

The "MULTI REPEAT TIMER" screen appears.

Adjust the items.

TIMER	
PRESENT TIME	
PROGRAM	: OFF
MULTI REPEAT	: ◀OFF▶
◀▶SEL. ADJ. EXIT RETURN	

MULTI REPEAT TIMER	
1 MULTI MODE	: ◀BTM LFT▶
WORK TIME	: 04H00M
INPUT MODE	
MAIN	: RGB/PC1
SUB	: VIDEO1
2 MULTI MODE	: S BY S1
WORK TIME	: 02H30M
INPUT MODE	
LEFT	: RGB/PC3
RIGHT	: HD/DVD1
◀▶SEL. ADJ. EXIT RETURN	

Information

■ MULTI REPEAT settings

MULTI MODE: Set the input mode to be displayed while the timer is on.

WORK TIME: Set the time duration of the display.

Time range is from 1 minutes to 4 hours and 15 minutes.

INPUT MODE: Set the signal that will be displayed within the selected screen.

Select "MAIN" or "SUB" for "PICTURE IN PICTURE (BTM LFT~TOP LFT)" and "LEFT" or "RIGHT" for "S BY S1~3". Only one signal is selected for "SINGLE".

* The two repeat timers run consecutively, i.e., Timer1–Timer2–Timer1–Timer2.

* When both PROGRAM TIMER and MULTI REPEAT TIMER are set, priority is given to PROGRAM TIMER.

Setting the power on mode

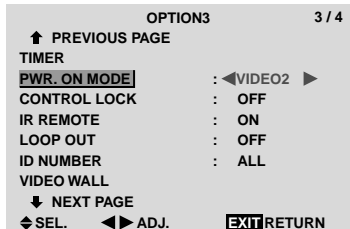
This function sets the input mode at the time the power is switched on.

Example: Setting "VIDEO2"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PWR. ON MODE" of "OPTION3" menu, select "VIDEO2".

The available sources depend on the settings of input.



Information

■ PWR. ON MODE settings

LAST: Last mode (the input that was last selected at the time the power was switched off).

VIDEO1, 2, 3: VIDEO input mode.

RGB1, 2, 3: RGB input mode.

HD/DVD1, 2: HD/DVD input mode.

DVD2, 3: DVD input mode.

MULTI: Multi screen mode.

Follow the procedure used for PROGRAM TIMER. See page E-27.

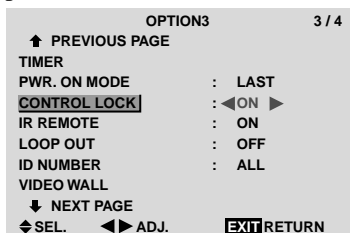
Enabling/disabling the front panel controls

This function enables/disables the front panel controls.

Example: Setting "ON"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "CONTROL LOCK" of "OPTION3" menu, select "ON", then press the MENU/ENTER button.



Information

■ CONTROL LOCK settings

ON: Disables the buttons on the front panel.

OFF: Enables the buttons on the front panel.

* Even when the CONTROL LOCK is set, the POWER switch will not be locked.

* This becomes effective when the on-screen menu goes out.

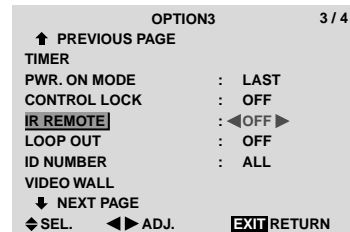
Enabling/disabling remote control wireless transmission

This function enables/disables remote control wireless transmission.

Example: Setting "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "IR REMOTE" of "OPTION3" menu, select "OFF", then press the MENU/ENTER button.



Information

■ IR REMOTE settings

ON: Enables remote control wireless transmission.

OFF: Disables remote control wireless transmission.

Set "OFF" to avoid unwanted control from other remote controls.

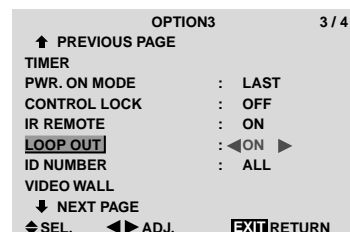
Loop Out setting

When this feature is set to ON, the received signal will be looped out.

Example: Setting "ON"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "LOOP OUT" of "OPTION3" menu, select "ON".



Information

■ LOOP OUT settings

ON: The received signal will be looped out via PC1 terminal or VIDEO1 terminal.

OFF: The received signal will not loop out.

* Even if LOOP OUT is ON, signals won't be sent out if POWER is being turned off.

■ To connect another display...

See page E-5.

■ If the RGB/PC1 signal is present at the time the power switched on...

The RGB/PC1 input will be displayed regardless of the setting of LOOP OUT.

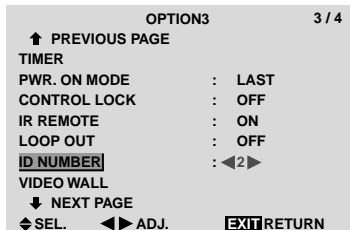
ID number setting

When using more than one of these displays, this function sets ID numbers so that operation of the remote control does not cause multiple monitors to operate at the same time.

Example: Setting "2"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "ID NUMBER" of "OPTION3" menu, select "2".



* To reset back to ALL

Press the CLEAR/SEAMLESS SW button

Information

■ ID NUMBER settings

ALL: ID NUMBER will not be set.

1 to 256: ID NUMBER will be set.

■ When the ID NUMBER have been set

You can also set ID NUMBER for each remote control to operate the plasma display individually. To do so, see the following explanation.

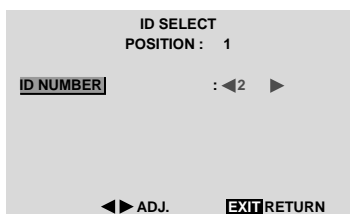
To set the ID number for the remote control

Example: Setting "2"

Press the ID SELECT button on the remote control.

The "ID SELECT" screen appears.

On "ID NUMBER" of "ID SELECT" menu, select "2".



* To reset back to ALL

Press the CLEAR/SEAMLESS SW button

Video Wall setting

Use this feature to configure a 4-25 video wall.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION3" menu, select "VIDEO WALL", then press the MENU/ENTER button.

The "VIDEO WALL" screen appears.



Note: A contingency method of shutting off the electric power should be used in cases of emergency during video wall setup.

DIVIDER

Set the 4-25 video wall.

Example: Setting "4"

On "DIVIDER" of "VIDEO WALL" menu, select "4".



Information

■ DIVIDER settings

OFF, 1: 1 Screen (Matrix display function does not work)

4: 4 Screens (2x2 video wall)

9: 9 Screens (3x3 video wall)

16: 16 Screens (4x4 video wall)

25: 25 Screens (5x5 video wall)

* When you select 4-25, set the VIDEO WALL POSITION.

VIDEO WALL POSITION

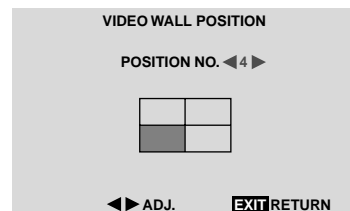
Set the position of each display.

Example: Setting "4"

On "VIDEO WALL" menu, select "POSITION", then press the MENU/ENTER button.

The "VIDEO WALL POSITION" screen appears.

Select "NO. 4" of "POSITION NO.".



Information

■ VIDEO WALL POSITION settings

1 Screen: There is no need to set POSITION.

4 Screens

NO. 1	NO. 2
NO. 4	NO. 3

9 Screens

NO. 7	NO. 8	NO. 9
NO. 10	NO. 11	NO. 12
NO. 13	NO. 14	NO. 15

16 Screens

NO. 16	NO. 17	NO. 18	NO. 19
NO. 20	NO. 21	NO. 22	NO. 23
NO. 24	NO. 25	NO. 26	NO. 27
NO. 28	NO. 29	NO. 30	NO. 31

25 Screens

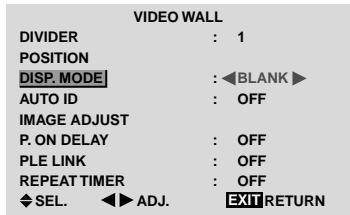
NO. 32	NO. 33	NO. 34	NO. 35	NO. 36
NO. 37	NO. 38	NO. 39	NO. 40	NO. 41
NO. 42	NO. 43	NO. 44	NO. 45	NO. 46
NO. 47	NO. 48	NO. 49	NO. 50	NO. 51
NO. 52	NO. 53	NO. 54	NO. 55	NO. 56

DISP. MODE

Select the screen mode from between two options (Splitting, Blanking).

Example: Setting "BLANK"

On "DISP. MODE" of "VIDEO WALL" menu, select "BLANK".



Information

■ DISP. MODE settings

SPLIT: Combines enlarged screens and creates multiple screens.

BLANK: Corrects misalignment of combined screen portions and creates multiple screens

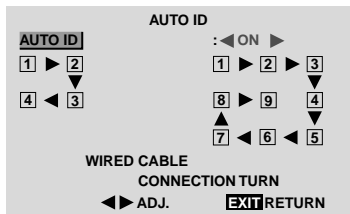
AUTO ID

This feature automatically sets the ID numbers of multiple displays connected to each other.

Example: Setting "ON"

Set the ID number for the No. 1 display on ID NUMBER menu.

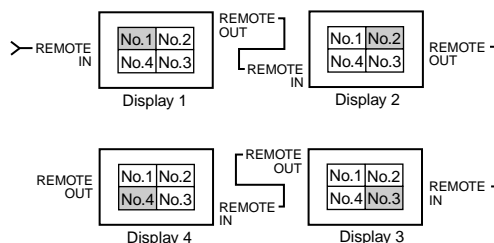
On "AUTO ID" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button.



Information

■ AUTO ID settings

ON: Enables Auto ID function. In the case shown below, display 1 will be set as ID 1, display 2 as ID2, etc. This can be set only when a 2×2 or 3×3 video wall is selected.



OFF: Disables Auto ID function.

IMAGE ADJUST

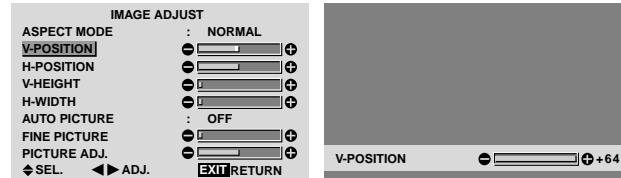
The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position

On "VIDEO WALL" menu, select "IMAGE ADJUST", then press the MENU/ENTER button.

The "IMAGE ADJUST" screen appears.

On "V-POSITION" of "IMAGE ADJUST" menu, adjust the position.



Information

■ IMAGE ADJUST settings

These are the same functions as the IMAGE ADJUST menu on page E-20.

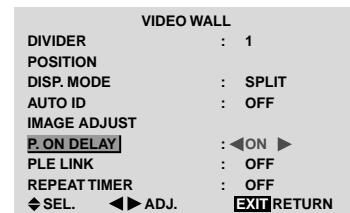
P. ON DELAY (Power on delay)

Use this function to activate power-on delay.

Turn on the AUTO ID before the following operations.

Example: Setting "ON"

On "P. ON DELAY" of "VIDEO WALL" menu, select "ON".



Information

■ P. ON DELAY settings

ON: Turns on the main power of each display after a delay time.

OFF: Turns on the main power of all displays at the same time.

(Only for 16 and 25 screens)

MODE1: Turns on the main power of each display delayed.

MODE2: Turns on the main power of each display more delayed.

* Once this function has been set to "ON", POWER ON/OFF button on the remote control does not function except for the No.1 monitor.

By pressing the POWER ON button on the remote control the No.1 monitor will turn on and the others will be turned on one by one automatically.

* From the second monitor onward, neither the POWER button on the unit nor the POWER ON button on the remote control works. However, by pressing and holding the POWER ON button for more than 3 seconds, the monitor will be turned on.

PLE LINK

Use this function to set a uniform brightness for each display.

Turn on the AUTO ID and set the DIVIDER (at 1, 4 or 9) before the following operations.

Example: Setting "ON"

On "PLE LINK" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button.

VIDEO WALL	
DIVIDER	: 1
POSITION	
DISP. MODE	: SPLIT
AUTO ID	: OFF
IMAGE ADJUST	
P. ON DELAY	: OFF
PLE LINK	: ◀ ON ▶
REPEAT TIMER	: OFF
◀ SEL. ▶ ADJ. ▶ EXIT RETURN	

REPEAT TIMER	
1 DIVIDER	: 1
SOURCE	: VIDEO1
WORK TIME	: 00H03M
2 DIVIDER	: 4
SOURCE	: RGB1
WORK TIME	: ◀ 00H06M ▶
◀ SEL. ▶ ADJ. ▶ EXIT RETURN	

Information

■ REPEAT TIMER settings

DIVIDER: Divide the screen into 1, 4 or 9 sections.

SOURCE: Set the input mode to be displayed.

WORK TIME: Can be set to up to 4 hours 15 minutes in units of 1 minute.

If you set both timers, Timer 1 and Timer 2 run consecutively.

In the case of the Video wall, timer No.1 can be used to control all the displays simultaneously.

* This becomes effective when the on-screen menu goes out.

Information

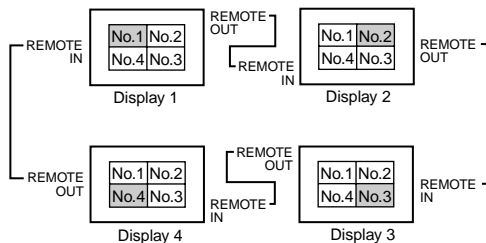
■ PLE LINK settings

ON: Sets a uniform brightness for each screen in a video wall. This can be set only when a 2×2 or 3×3 video wall is selected.

OFF: Sets the individual screen brightness for each screen in a video wall.

* When this function is set "ON", connect your plasma displays with the remote cable (optional) in the order of the position numbers for the 2×2 video wall. See the drawing below.

* If there are changes in the DIVIDER or POSITION, the PLE LINK will automatically turn OFF.



* With the 3×3 video wall, connect the final display to the first display the same way as with 2×2 video wall.

Note: The remote control can be operated unless the IR REMOTE is set to "OFF".

REPEAT TIMER

Use this to set two timers. Each timer can use the DIVIDER, SOURCE and WORK TIME.

Turn on the AUTO ID and set the DIVIDER (at 1, 4 or 9) before the following operations.

Example:

TIMER1...VIDEO1 will be displayed for 3 minutes.

TIMER2...RGB1 will be displayed for 6 minutes in a 2×2 video wall.

On "REPEAT TIMER" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button.

The "REPEAT TIMER" screen appears.

Adjust the items.

Option4 Settings Menu

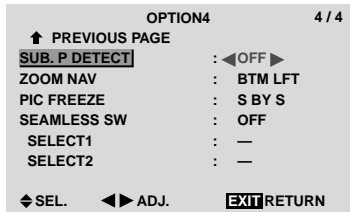
Erasing the sub screen image when there is no input signal

This function automatically erases the black frame of the sub screen when there is no sub screen input signal. This feature is available only when the picture-in-picture mode is selected.

Example: Set to "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "SUB. P DETECT" of "OPTION4" menu, select "OFF".



Information

SUB. P DETECT Function

- * The sub screen disappears when the input signal is lost.
- * Loss of the input signal means a condition in which the video signal and the sync signal are not present.
- * Under conditions in which the sub screen has disappeared, the ZOOM NAV, PIC FREEZE, and SEAMLESS SW functions will not work. The WIDE button will not function either.

SUB. P DETECT settings

AUTO: The black frame disappears 3 seconds after the input signal is lost.

OFF: Turns off the SUB. P DETECT function.

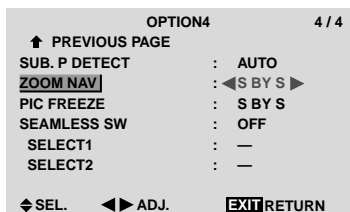
Displaying the entire image during DIGITAL ZOOM operations

Use this function to display the entire image within the sub screen together with an enlarged image on the main screen.

Example: Setting "ZOOM NAV" to "S BY S"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "ZOOM NAV" of "OPTION4" menu, select "S BY S".



Information

ZOOM NAV Function

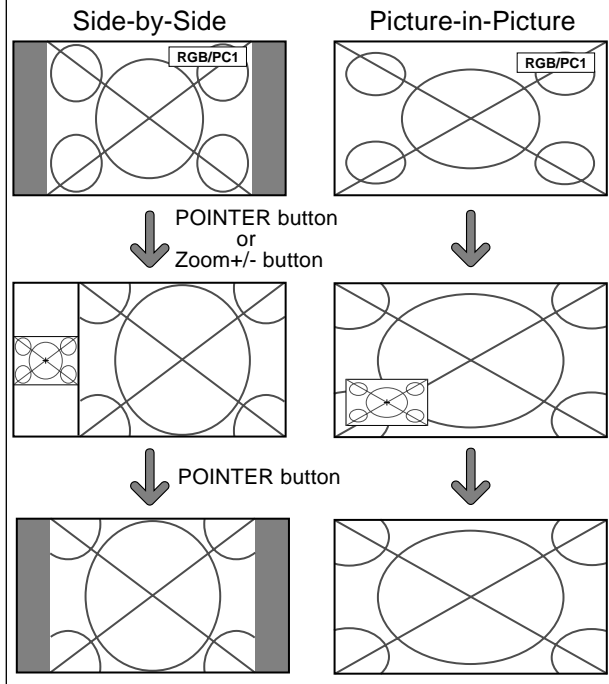
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during split screen mode.
- * This feature does not function while PIC FREEZE is operating.
- * Providing a 2-screen display will cancel this function.

ZOOM NAV settings

OFF: Will not show the entire image on the sub screen.

S BY S: Will show the entire image on the sub screen of side-by-side mode.

BTM LFT~TOP LFT: Will show the entire image on the sub screen of picture-in-picture mode.



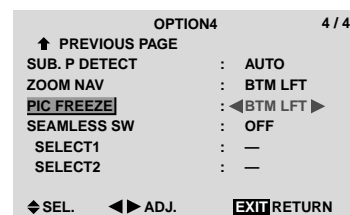
Displaying still images in the sub screen

This feature enables display in the sub screen of still images captured by pressing the SELECT/FREEZE button.

Example: Setting "PIC FREEZE" to "BTM LFT"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PIC FREEZE" of "OPTION4" menu, select "BTM LFT".



Information

PIC FREEZE Function

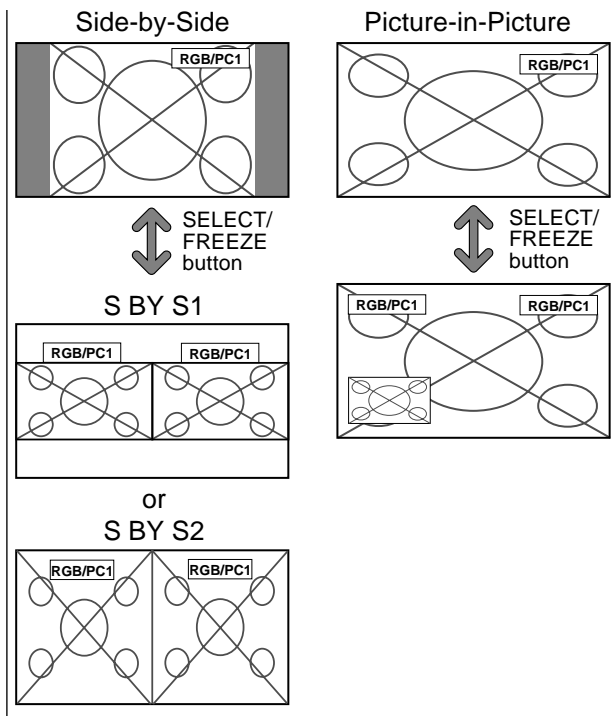
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during split screen mode.
- * Digital zoom is not available while this function is operating.
- * A further press of the SELECT/FREEZE button while this function is operating will cancel this function.
- * Providing a 2-screen display will cancel this function.

PIC FREEZE settings

OFF: Will not show the still image.

S BY S1, 2: The still images captured by pressing the SELECT/FREEZE button will be shown on the sub screen of side-by-side mode.

BTM LFT~TOP LFT: The still images captured by pressing the SELECT/FREEZE button will be shown on the sub screen of picture-in-picture mode.



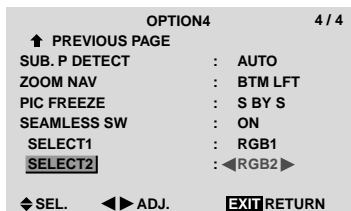
Switching the input source quickly

This feature enables quick input selection. After setting ON, press the CLEAR/SEAMLESS SW button for quick switching between the two selected input signals.

Example: Set to switch quickly between RGB1 and RGB2.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "SEAMLESS SW" of "OPTION4" menu, select "ON". Select "RGB1" and "RGB2".



* The available sources depend on the settings of input.

Information

SEAMLESS SW Function

- * This feature will not function for certain input combinations. See the table on page E-13.
- * After switching to the selected input, please operate this function.
- * This feature will not function during split screen mode.
- * When SEAMLESS SW is first turned on, or when signals being transmitted are changed, there may be a slight delay due to signal analysis.

SEAMLESS SW settings

OFF: Turns off the SEAMLESS SW function.

ON: When the CLEAR/SEAMLESS SW button is pressed, input signals will switch quickly according to the setting of SELECT1 and SELECT2.

Advanced OSM Settings Menu

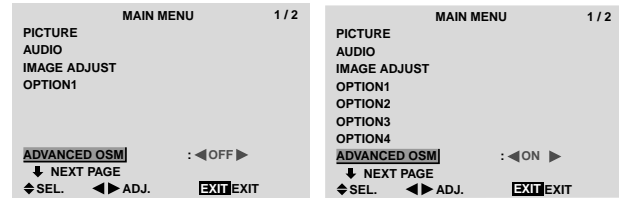
Setting the menu mode

This allows you to access full menu items.

When P. ON DELAY or PLE LINK is ON, this won't be turned OFF.

Example: Setting "ON"

On "ADVANCED OSM" of "MAIN MENU", select "ON".



Information

ADVANCED OSM settings

ON: All of the main menu items are available for advanced users.

OFF: Some of the main menu items are not available (e.g. OPTION2, OPTION3 and OPTION4).

Language Settings Menu

Setting the language for the menus

The menu display can be set to one of eight languages.

Example: Setting the menu display to "DEUTSCH"

On "MAIN MENU", select "LANGUAGE", then press the MENU/ENTER button.

The "LANGUAGE" screen appears.

On "LANGUAGE", select "DEUTSCH", then press the MENU/ENTER button.



The "LANGUAGE" is set to "DEUTSCH" and return to the main menu.

Information

Language settings

ENGLISH	English	ITALIANO	Italian
DEUTSCH	German	SVENSKA	Swedish
FRANÇAIS	French	中文	Chinese
ESPAÑOL	Spanish	РУССКИЙ	Russian

Color System Settings Menu

Setting the video signal format

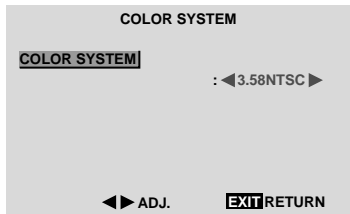
Use these operations to set the color systems of composite video signals or Y/C input signals.

Example: Setting the color system to “3.58 NTSC”

On the MAIN MENU, select “COLOR SYSTEM”, then press the MENU/ENTER button.

The “COLOR SYSTEM” screen appears.

On “COLOR SYSTEM”, select “3.58NTSC”.



Information

■ Video signal formats

Different countries use different formats for video signals. Set to the color system used in your current country.

AUTO: The color systems are automatically identified and the format is set accordingly.

PAL: This is the standard format used mainly in the United Kingdom and Germany.

SECAM: This is the standard format used mainly in France and Russia.

4.43 NTSC, PAL60: This format is used for videos in countries using PAL and SECAM video signals.

3.58 NTSC: This is the standard format used mainly in the United States and Japan.

PAL-M: This is the standard format used mainly in Brazil.

PAL-N: This is the standard format used mainly in Argentina.

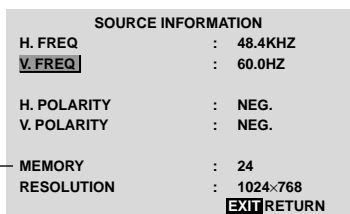
Source Information Menu

Checking the frequencies, polarities of input signals, and resolution

Use this function to check the frequencies and polarities of the signals currently being input from a computer, etc.

On “MAIN MENU”, select “SOURCE INFORMATION”, then press the MENU/ENTER button.

The “SOURCE INFORMATION” is displayed.



PC: MEMORY will be displayed.

Others: MODE will be displayed.

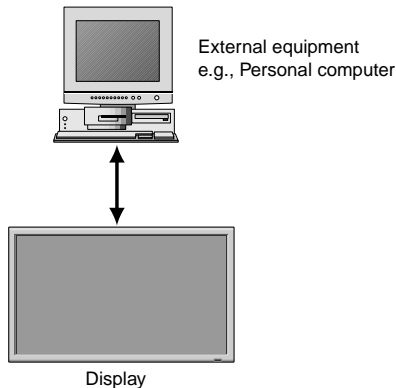
External Control Pin Assignments

Application

These specifications cover the communications control of the plasma monitor by external equipment.

Connections

Connections are made as described below.

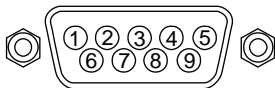


Connector on the plasma monitor side: EXTERNAL CONTROL connector.

Use a crossed (reverse) cable.

Type of connector: D-Sub 9-pin male

Pin No.	Pin Name	Pin No.	Pin Name
1	No Connection	6	DSR (DCE side ready)
2	RXD (Receive data)	7	RTS (Ready to send)
3	TXD (Transmit data)	8	CTS (Clear to send)
4	DTR (DTE side ready)	9	No connection
5	GND		



Communication Parameters

- | | |
|--------------------------|--------------|
| (1) Communication system | Asynchronous |
| (2) Interface | RS-232C |
| (3) Baud rate | 9600 bps |
| (4) Data length | 8 bits |
| (5) Parity | Odd |
| (6) Stop bit | 1 bit |
| (7) Communication code | Hex |

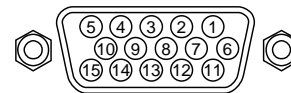
External Control Codes (Reference)

FUNCTION		CODE DATA							
Power ON		9FH	80H	60H	4EH	00H	CDH		
OFF		9FH	80H	60H	4FH	00H	CEH		
Input Switch	Video1 (BNC)	DFH	80H	60H	47H	01H	01H	08H	
	Video2 (RCA)	DFH	80H	60H	47H	01H	02H	09H	
	Video3 (S-Video)	DFH	80H	60H	47H	01H	03H	0AH	
	DVD1/HD1 (RCA)	DFH	80H	60H	47H	01H	05H	0CH	
	DVD2/HD2 (BNC)	DFH	80H	60H	47H	01H	06H	0DH	
	RGB1 (mini D-Sub 15-Pin)	DFH	80H	60H	47H	01H	07H	0EH	
	RGB2 (5BNC)	DFH	80H	60H	47H	01H	08H	0FH	
Audio Mute	ON	9FH	80H	60H	3EH	00H	BDH		
	OFF	9FH	80H	60H	3FH	00H	BEH		
Picture Mode	NORMAL	DFH	80H	60H	0AH	01H	01H	CBH	
	THEAT. 1	DFH	80H	60H	0AH	01H	02H	CCH	
	THEAT. 2	DFH	80H	60H	0AH	01H	03H	CDH	
	DEFAULT	DFH	80H	60H	0AH	01H	04H	CEH	
	BRIGHT	DFH	80H	60H	0AH	01H	05H	CFH	
Screen Mode	STADIUM	DFH	80H	60H	51H	01H	02H	13H	
	ZOOM	DFH	80H	60H	51H	01H	03H	14H	
	NORMAL	DFH	80H	60H	51H	01H	04H	15H	
	FULL	DFH	80H	60H	51H	01H	05H	16H	
	14 : 9	DFH	80H	60H	51H	01H	09H	1AH	
	2.35 : 1	DFH	80H	60H	51H	01H	0AH	1BH	
Auto Picture	ON	DFH	80H	60H	7FH	03H	03H	09H	00H 4DH
	OFF	DFH	80H	60H	7FH	03H	03H	09H	01H 4EH
Cinema Mode	ON	DFH	80H	60H	C1H	01H	01H	82H	
	OFF	DFH	80H	60H	C1H	01H	02H	83H	

Note: Contact your local dealer for a full list of the External Control Codes if needed.

mini D-Sub 15-pin connector (Analog)

RGB 1



Pin No.	Signal (Analog)
1	Red
2	Green or sync-on-green
3	Blue
4	No connection
5	Ground
6	Red ground
7	Green ground
8	Blue ground
9	No connection
10	Sync signal ground
11	No connection
12	Bi-directional DATA (SDA)
13	Horizontal sync or Composite sync
14	Vertical sync
15	Data clock

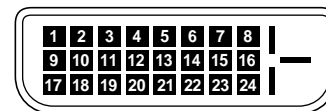
DVI-D 24-pin connector (Digital)

The unit is equipped with a type of connector commonly used for digital.

(This cannot be used for an analog input.)

(TMDS can be used for one link only.)

RGB 3



Pin No.	Signal (Digital)
1	T.M.D.S Data 2 -
2	T.M.D.S Data 2 +
3	T.M.D.S Data 2 Shield
4	No connection
5	No connection
6	DDC Clock
7	DDC Data
8	No connection
9	T.M.D.S Data 1 -
10	T.M.D.S Data 1 +
11	T.M.D.S Data 1 Shield
12	No connection
13	No connection
14	+5V Power
15	Ground
16	Hot Plug Detect
17	T.M.D.S Data 0 -
18	T.M.D.S Data 0 +
19	T.M.D.S Data 0 Shield
20	No connection
21	No connection
22	T.M.D.S Clock Shield
23	T.M.D.S Clock +
24	T.M.D.S Clock -

Troubleshooting

If the picture quality is poor or there is some other problem, check the adjustments, operations, etc., before requesting service.

Symptom	Checks	Remedy
Mechanical sound is heard.	<ul style="list-style-type: none"> • Maybe the sound from the cooling fans used to prevent over heating. 	
The unit emits a crackling sound.	<ul style="list-style-type: none"> • Are the image and sound normal? 	<ul style="list-style-type: none"> • If there are no abnormalities in the image and sound, the noise is caused by the cabinet reacting to changes in temperature. This will not affect performance.
Picture is disturbed. Sound is noisy. Remote control operates erroneously.	<ul style="list-style-type: none"> • Is a connected component set directly in front or at the side of the display? 	<ul style="list-style-type: none"> • Leave some space between the display and the connected components.
The remote control does not work.	<ul style="list-style-type: none"> • Are the remote control's batteries worn out? • Is IR REMOTE set to ON? • Has an ID number been set for the main unit? 	<ul style="list-style-type: none"> • Replace both batteries with new ones. • Set IR REMOTE OFF on OPTION3 menu. • Set an ID number with the ID SELECT button, or set the ID number to ALL.
Monitor's power does not turn on when the remote control's power button is pressed.	<ul style="list-style-type: none"> • Is the monitor's power cord plugged into a power outlet? • Are all the monitor's indicators off? • Are the remote control's batteries worn out? • Is IR REMOTE set to OFF? • Has an ID number been set for the main unit? 	<ul style="list-style-type: none"> • Plug the monitor's power cord into a power outlet. • Press the power button on the monitor to turn on the power. • Replace both batteries with new ones. • Set IR REMOTE ON. • Set an ID number with the ID SELECT button, or set the ID number to ALL.
Monitor does not operate when the remote control's buttons are pressed.	<ul style="list-style-type: none"> • Is the remote control pointed at the monitor, or is there an obstacle between the remote control and the monitor? • Is direct sunlight or strong artificial light shining on the monitor's remote control sensor? • Are the remote control's batteries worn out? • The remote cable is plugged into the REMOTE IN terminal (Wired). 	<ul style="list-style-type: none"> • Point the remote control at the monitor's remote control sensor when pressing buttons, or remove the obstacle. • Eliminate the light by closing curtains, pointing the light in a different direction, etc. • Replace both batteries with new ones. • Unplug the remote cable from the monitor.
The front panel buttons of the main unit do not function.	<ul style="list-style-type: none"> • The front panel buttons do not function during Control Lock. 	<ul style="list-style-type: none"> • Set the Control Lock to OFF.
No sound or picture is produced.	<ul style="list-style-type: none"> • Is the monitor's power cord plugged into a power outlet? 	<ul style="list-style-type: none"> • Plug the monitor's power cord into a power outlet.
Picture appears but no sound is produced.	<ul style="list-style-type: none"> • Is the volume set at the minimum? • Is the mute mode set? • Are the speakers properly connected? • Is AUDIO INPUT set correctly? 	<ul style="list-style-type: none"> • Increase the volume. • Press the remote control's MUTE button. • Connect the speakers properly. • Set AUDIO INPUT on the AUDIO menu correctly.
Poor picture with VIDEO signal input.	<ul style="list-style-type: none"> • Improper control setting. • Local interference. • Cable interconnections. • Input impedance is not correct level. 	<ul style="list-style-type: none"> • Adjust picture control as needed. • Try another location for the monitor. • Be sure all connections are secure.
Poor picture with RGB signal input.	<ul style="list-style-type: none"> • Improper control setting. • Incorrect 15 PIN connector pin connections. 	<ul style="list-style-type: none"> • Adjust picture controls as needed. • Check pin assignments and connections.
Tint is poor or colors are weak.	<ul style="list-style-type: none"> • Are the tint and colors properly adjusted? 	<ul style="list-style-type: none"> • Adjust the tint and color (under PICTURE).
Nothing appears on screen.	<ul style="list-style-type: none"> • Is the computer's power turned on? • Is a source connected? • Is the power management function in the standby or off mode? • Is LOOP OUT set to ON? 	<ul style="list-style-type: none"> • Turn on the computer's power. • Connect source to the monitor. • Operate the computer (move the mouse, etc.). • Set LOOP OUT OFF.
Part of picture is cut off or picture is not centered.	<ul style="list-style-type: none"> • Is the position adjustment appropriate? 	<ul style="list-style-type: none"> • Adjust the IMAGE ADJUST properly.
Image is too large or too small.	<ul style="list-style-type: none"> • Is the screen size adjustment appropriate? 	<ul style="list-style-type: none"> • Press the WIDE button on the remote control and adjust properly.
Picture is unstable.	<ul style="list-style-type: none"> • Is the computer's resolution setting appropriate? 	<ul style="list-style-type: none"> • Set to the proper resolution.
POWER/STANDBY indicator is lighted in red.	<ul style="list-style-type: none"> • Horizontal and / or vertical sync signal is not present when the Intelligent Power Manager control is on. 	<ul style="list-style-type: none"> • Check the input signal.
POWER/STANDBY indicator is blinking in red.	<ul style="list-style-type: none"> • The temperature inside the main unit has become too high and has activated the protector. 	<ul style="list-style-type: none"> • Promptly switch off the power of the main unit and wait until the internal temperature drops. See*1.
POWER/STANDBY indicator is blinking in green and red, or green.		<ul style="list-style-type: none"> • Promptly switch off the power of the main unit. See *2.

*1 Overheat protector

If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location and wait for the monitor to cool for 60 minutes. If the problem persists, contact your dealer.

*2 In the following case, power off the monitor immediately and contact your dealer or authorized Service Center.

The monitor turns off 5 seconds after powering on and then the POWER/STANDBY indicator blinks. It indicates that the power supply circuit, plasma display panel, temperature sensor, or one or more fans have been damaged.

PlasmaSync Plasma Monitor



***PlasmaSync 50XM4
PX-50XM4W***

Model Information

Modell-Informationen

Informations modèle

Información del modelo

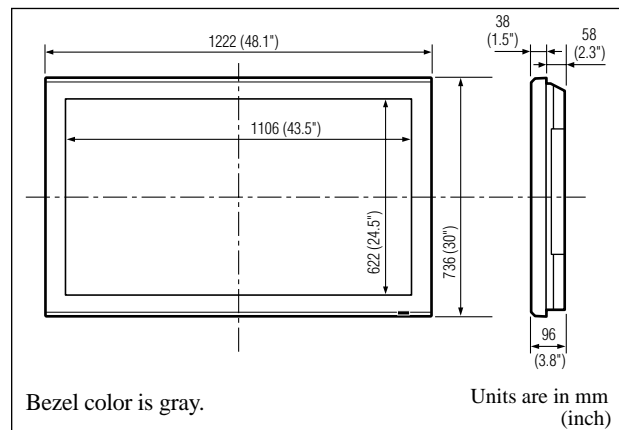
Informazioni sul modello

Информация о модели

Specifications

For the operation of your plasma monitor, refer to "Operation Manual".

Screen Size	1106(H) × 622(V) mm 43.5"(H) × 24.5"(V) inches diagonal 50"
Aspect Ratio	16 : 9
Resolution	1365(H) × 768(V) pixels
Pixel Pitch	0.81(H) × 0.81(V) mm 0.032"(H) × 0.032"(V) inches
Color Processing	4,096 steps, 68.7 billion colors
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD* ¹ , DVD* ¹ , DTV* ¹
Input Terminals (VIDEO1 and RGB1 can also be used as OUTPUT terminals)	
RGB	
Visual 1 (Analog)	mini D-sub 15-pin × 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) × 1* ²
Visual 3 (Digital)	DVI-D 24-pin × 1* ³
Video	
Visual 1	BNC × 1
Visual 2	RCA-pin × 1
Visual 3	S-Video: DIN 4-pin × 1
DVD/HD/DTV	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) × 1* ¹
Visual 2	BNC (Y, PB[CB], PR[CR]) × 1* ^{1, *2}
Visual 3	DVI-D 24-pin × 1* ³
Audio	Stereo RCA × 3 (Selectable)
External Control	D-sub 9-pin × 1 (RS-232C)
Sound output	9W+9W at 6 ohm
Power Supply	AC100-240V 50/60Hz
Current Rating	7.6 A (maximum)
Power Consumption	435W (typical)
Dimensions	1222 (W) × 736 (H) × 96 (D) mm 48.1 (W) × 30 (H) × 3.8 (D) inches
Weight	44 kg / 97 lbs (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Humidity	20 to 80% (no condensation)
Altitude	0 to 2800 m / 0 to 9180 feet
Storage Temperature	-10°C to 50°C / 14°F to 122°F
Humidity	10 to 90% (no condensation)
Altitude	0 to 3000 m / 0 to 9840 feet
Front Panel User Controls	Power on/off, Input source select, Volume up/down/ OSM control
Remote Control Functions	Power on/off, Input source select, OSM control, Volume up/down, Cursor (UP, DOWN, LEFT, RIGHT), Pointer, Zoom up/ down, Off timer, Wireless/Wired remote control, Split screen buttons
OSM Functions	Picture (Contrast/Brightness/Sharpness/ Color/Tint/ Picture mode/Noise reduction/Color temperature/ White balance/Gamma/Low tone/Color tune), Audio (Bass/Treble/Balance/Audio input), Image Adjust (Aspect mode/V-Position /H-Position/V-Height /H- Width/Auto Picture/Fine picture/Picture adjustment), Option1 (OSM/BNC Input/D-Sub Input/RGB Select/ HD Select/Input Skip/All Reset), Option2 (Power management/Cinema mode/Long life [PLE, Orbiter, Inverse, White, Screen wiper, Soft focus]/Gray level/ S1/S2/Picture size/DVI Set up), Option3 (Timer/ Power on mode/Control lock/IR Remote/Loop out/ ID number/Video wall [Divider, Position, Disp. mode, Auto ID, Image adjust, Power on delay, PLE link, Timer]), Option4 (Sub. P detect/Zoom nav/Pic freeze/ Seamless SW), Advanced OSM, Language*, Color system, Source information *English, German, French, Italian, Spanish, Swedish, Chinese, Russian



The features and specifications may be subject to change without notice.

*¹ HD/DVD/DTV input signals supported on this system

480P (60 Hz)	480I (60 Hz)
525P (60 Hz)	525I (60 Hz)
576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)
720P (60 Hz)	1035I (60 Hz)
1080I (50 Hz)	1080I (60 Hz)

*² The 5-BNC connectors are used as RGB/PC2 and HD/DVD2 input. Select one of them under "BNC INPUT".

*³ Compatible with HDCP.

Supported Signals

- 640 × 480P @ 59.94/60Hz
- 1280 × 720P @ 59.94/60Hz
- 1920 × 1080I @ 59.94/60Hz
- 720 × 480P @ 59.94/60Hz
- 1440 (720) × 480I @ 59.94/60Hz
- 1920 × 1080I @ 50Hz
- 720 × 576P @ 50Hz
- 1440 (720) × 576P @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Video Wall 4-25 multi screen, Self Diagnosis, Image Burn reduction tools (PLE LOCK1~3, INVERSE, WHITE, ORBITER (Auto1,2/Manual), SCREEN WIPER), Color Temperature select (high/mid/low/low, user has 4 memories), Control lock (Except power SW), Auto Picture, Input Skip, Color Tune, Low Tone (3 mode), Auto ID, Programmable Timer, Gamma Correction (4 mode), Loop through interface, Plug and play (DDC1, DDC2b, RGB3: DDC2b only), Split screen operations
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Accessories	Remote control with two AAA batteries, Power cord, Manuals, Safety metal fittings, Ferrite cores, Bands, Cable clamps
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Regulations	Meets EMC Directive (EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3) Meets Low Voltage Directive (EN60950-1, IEC60950-1, SEMKO Approved) Meets AS/NZS CISPR 22:2002 Class A
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Table of Signals Supported

Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 1024 dots × 768 lines signal. (Except for *2,3,4)
- When the screen mode is TRUE, the picture is displayed in the original resolution.
- When the screen mode is FULL, each signal is converted to a 1365 dots × 768 lines signal. (Except for *3)

Computer input signals supported by this system

Model	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode			RGB select*5	DVI	Memory
				Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	TRUE	FULL (16:9)			
IBM PC/AT*8 compatible computers	640 × 400	70.1	31.5	NEG	NEG	YES	YES	YES*2	YES	YES	--	NO	4
	640 × 480	59.9	31.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	5
		72.8	37.9	NEG	NEG	YES	YES	YES	YES	YES	--	YES	7
		75.0	37.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	8
		85.0	43.3	NEG	NEG	YES	YES	YES	YES	YES	--	YES	9
		100.4	51.1	NEG	NEG	YES	YES	YES	YES	YES	--	YES	41
		120.4	61.3	NEG	NEG	YES	YES	YES	YES	YES	--	YES	42
	848 × 480	60.0	31.0	POS	POS	YES	YES	--	YES	YES	WIDE2	YES	19
	852 × 480*1	60.0	31.7	NEG	NEG	YES	YES	--	YES	YES	WIDE1	YES	17
	800 × 600	56.3	35.2	POS	POS	YES	YES	YES	YES	YES	STILL	YES	11
		60.3	37.9	POS	POS	YES	YES	YES	YES	YES	STILL	YES	12
		72.2	48.1	POS	POS	YES	YES	YES	YES	YES	--	YES	13
		75.0	46.9	POS	POS	YES	YES	YES	YES	YES	--	YES	14
		85.1	53.7	POS	POS	YES	YES	YES	YES	YES	--	YES	15
		99.8	63.0	POS	POS	YES	YES	YES	YES	YES	--	YES	43
	1024 × 768	120.0	75.7	POS	POS	YES	YES	YES	YES	YES	--	YES	44
		60.0	48.4	NEG	NEG	YES	YES	YES*3	--	YES	STILL	YES	24
		70.1	56.5	NEG	NEG	YES	YES	YES*3	--	YES	--	YES	25
		75.0	60.0	POS	POS	YES	YES	YES*3	--	YES	STILL	YES	26
		85.0	68.7	POS	POS	YES	YES	YES*3	--	YES	--	YES	27
		100.6	80.5	NEG	NEG	YES	YES	YES*3	--	YES	--	YES	45
	1152 × 864	75.0	67.5	POS	POS	YES	YES	YES	--	YES	STILL	YES	51
	1280 × 768	56.2	45.1	POS	POS	YES	YES	--	--	YES	WIDE1	NO	52
		59.8	48.0	POS	NEG	YES	YES	--	--	YES	WIDE3	YES	80
	1280 × 768*9	69.8	56.0	NEG	POS	YES	YES	--	--	YES	WIDE1	YES	66
	1280 × 800*9	60.0	49.7	NEG	NEG	YES	YES	--	--	YES	WIDE1	YES	21
	1280 × 854*9	60.0	53.1	NEG	NEG	YES	YES	--	--	YES	WIDE2	YES	37
	1360 × 765	60.0	47.7	POS	POS	YES	YES	--	--	YES*3	WIDE1	NO	22
	1360 × 768	60.0	47.7	POS	POS	YES	YES	--	--	YES*3	WIDE1	YES	22
	1376 × 768	59.9	48.3	NEG	POS	YES	YES	--	--	YES	WIDE2	YES	53
	1280 × 1024	60.0	64.0	POS	POS	YES	YES	YES*4	--	YES	STILL	YES	29
		75.0	80.0	POS	POS	YES	YES	YES*4	--	YES	--	YES	30
		85.0	91.1	POS	POS	YES	YES	YES*4	--	YES	--	YES	40
		100.1	108.5	POS	POS	YES	YES	YES*4	--	YES	--	NO	47
	1680 × 1050*9	60.0	65.3	NEG	NEG	YES	YES	--	--	YES	WIDE4	YES	38
	1600 × 1200	60.0	75.0	POS	POS	YES	YES	YES	--	YES	--	YES	54
		65.0	81.3	POS	POS	YES	YES	YES	--	YES	--	NO	55
		70.0	87.5	POS	POS	YES	YES	YES	--	YES	--	NO	56
		75.0	93.8	POS	POS	YES	YES	YES	--	YES	--	NO	57
		85.0	106.3	POS	POS	YES	YES	YES	--	YES	--	NO	58
	1920 × 1200*9	60.0	74.6	NEG	NEG	YES	YES	--	--	YES	WIDE2	--	81
	1920 × 1200RB*9	60.0	74.0	NEG	NEG	YES	YES	--	--	YES	WIDE3	YES	88
Apple Macintosh*6 *8	640 × 480	66.7	35.0	Sync on G	Sync on G	--	--	YES	YES	YES	--	NO	6
	832 × 624	74.6	49.7	Sync on G	Sync on G	--	--	YES	YES	YES	--	NO	16
	1024 × 768	74.9	60.2	Sync on G	Sync on G	--	--	YES*3	--	YES	WIDE1	NO	28
	1152 × 870	75.1	68.7	Sync on G	Sync on G	--	--	YES	--	YES	WIDE1	NO	39
	1440 × 900*9	60.0	56.0	NEG	NEG	YES	YES	--	--	YES	--	YES	89
Work Station (EWS4800)*8	1280 × 1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	--	YES	--	YES	29
		71.2	75.1	NEG	NEG	YES	YES	YES*4	--	YES	--	YES	48
Work Station(HP)*8	1280 × 1024	72.0	78.1	--	--	--	--	YES*4	--	YES	--	YES	59
Work Station (SUN)*8	1152 × 900	66.0	61.8	C Sync	C Sync	--	--	YES	--	YES	--	YES	60
		76.0	71.7	C Sync	C Sync	--	--	YES	--	YES	--	YES	61
	1280 × 1024	76.1	81.1	C Sync	C Sync	--	--	YES*4	--	YES	--	YES	30
Work Station (SGI)	1024 × 768	60.0	49.7	--	--	--	--	YES*3	--	YES	--	YES	62
	1280 × 1024	60.0	63.9	--	--	--	--	YES*4	--	YES	--	YES	29
IDC-3000G													
	PAL625P	768 × 576	50.0	NEG	NEG	YES	YES	YES*7	--	YES*7	--	NO	31
	NTSC525P	640 × 480	59.9	NEG	NEG	YES	YES	YES*7	--	YES*7	MOTION	NO	32

- *1 Only when using a graphic accelerator board that is capable of displaying 852×480.
- *2 This signal is converted to a 1024 dots×640 lines signal.
- *3 The picture is displayed in the original resolution. The picture will be compressed for other signals.
- *4 Aspect ratio is 5:4. This signal is converted to a 960 dots×768 lines signal.
- *5 Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
- *6 To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin) to your computer's video port.
- *7 Other screen modes (ZOOM and STADIUM) are available as well.
- *8 When viewing a moving picture at a vertical frequency greater than 65Hz, the picture may sometimes be unstable (jumpy). If this occurs, please set the refresh rate of the external equipment to 60Hz.
To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (567 interlaced lines, 50Hz refresh rate) when sync polarity is "Sync on Green", set "RGB SELECT" to "MOTION".
- *9 CVT standard compliant.

NOTE:

- While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.
- When a 1280 dots × 1024 lines signal or 1600 dots × 1200 lines signal is input to the monitor, the picture will be compressed.
- This monitor has a resolution of 1365 dots × 768 lines. It is recommended that the input signal should be XGA, wide XGA, or equivalent.
- With digital input some signals are not accepted.
- The sync may be disturbed when a nonstandard signal other than the aforementioned is input.
- If you are connecting a composite sync signal, use the HD terminal.

What is HDCP/HDCP technology?

HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).

If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

- "IBM PC/AT" and "XGA" are registered trademarks of International Business Machines, Inc. of the United States.
- "Apple Macintosh" is a registered trademark of Apple Computer, Inc. of the United States.

Important Information

Warning

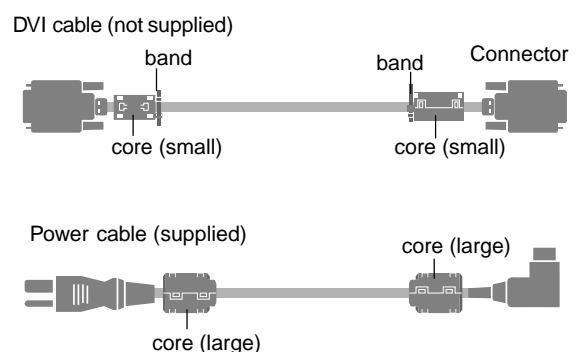
Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

NOTE:

When you connect a computer to this monitor, use an RGB cable including the ferrite core on both ends of the cable. And regarding DVI and power cable, attach the supplied ferrite cores. If you do not do this, this monitor will not conform to mandatory CE or C-Tick standards. Set the ferrite cores on both ends of the DVI cable (not supplied), and both ends of the power cable (supplied). Close the lid tightly until the clamps click. Use the band to fasten the ferrite core (supplied) to the DVI cable.





Operation Manual

(Enhanced split screen Model)

For the specifications of your plasma monitor, refer to "Model Information".

ENGLISH

DEUTSCH

FRANÇAIS

ESPAÑOL


ITALIANO

РУССКИЙ


Important Information

Precautions

Please read this manual carefully before using your plasma monitor and keep the manual handy for future reference.



CAUTION



**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS, UNLESS THE PRONGS CAN BE FULLY INSERTED. REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warnings and Safety Precaution

This plasma monitor is designed and manufactured to provide long, trouble-free service. No maintenance other than cleaning is required. Please see the section "Plasma monitor cleaning procedure" on the next page.

The plasma display panel consists of fine picture elements (cells) with more than 99.99 percent active cells. There may be some cells that do not produce light or remain lit.

For operating safety and to avoid damage to the unit, read carefully and observe the following instructions.

To avoid shock and fire hazards:

1. Provide adequate space for ventilation to avoid internal heat build-up. Do not cover rear vents or install the unit in a closed cabinet or shelves.
If you install the unit in an enclosure, make sure there is adequate space at the top of the unit to allow hot air to rise and escape. If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location, and wait for 60 minutes to cool the monitor. If the problem persists, contact your dealer for service.
2. Do not use this unit's polarized plug with extension cords or outlets unless the prongs can be completely inserted.
3. Do not expose the unit to water or moisture.
4. Avoid damage to the power cord, and do not attempt to modify the power cord.
5. Unplug the power cord during electrical storms or if the unit will not be used over a long period.
6. Do not open the cabinet which has potentially dangerous high voltage components inside. If the unit is damaged in this way the warranty will be void. Moreover, there is a serious risk of electric shock.

7. Do not attempt to service or repair the unit. The manufacturer is not liable for any bodily harm or damage caused if unqualified persons attempt service or open the back cover. Refer all service to authorized Service Centers.

To avoid damage and prolong operating life:

1. Use only with 100-240V 50/60Hz AC power supply. Continued operation at line voltages greater than 100-240 Volts AC will shorten the life of the unit, and might even cause a fire hazard.
2. Handle the unit carefully when installing it and do not drop.
3. Set the unit away from heat, excessive dust, and direct sunlight.
4. Protect the inside of the unit from liquids and small metal objects.
In case of accident, unplug the power cord and have it serviced by an authorized Service Center.
5. Do not hit or scratch the panel surface as this causes flaws on the surface of the screen.
6. For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.
7. As is the case with any phosphor-based display (like a CRT monitor, for example) light output will gradually decrease over the life of a Plasma Display Panel.
8. To avoid sulfurization it is strongly recommended not to place the unit in a dressing room in a public bath or hot spring bath.
9. Do not use in a moving vehicle, as the unit could drop or topple over and cause injuries.
10. Do not place the unit on its side, upside-down or with the screen facing up or down, to avoid combustion or electric shock.

Plasma monitor cleaning procedure:

1. Use a soft dry cloth to clean the front panel and bezel area. Never use solvents such as alcohol or thinner to clean these surfaces.
2. Clean plasma ventilation areas with a vacuum cleaner with a soft brush nozzle attachment.
3. To ensure proper ventilation, cleaning of the ventilation areas must be carried out monthly. More frequent cleaning may be necessary depending on the environment in which the plasma monitor is installed.

Recommendations to avoid or minimize phosphor burn-in:

Like all phosphor-based display devices and all other gas plasma displays, plasma monitors can be susceptible to phosphor burn under certain circumstances. Certain operating conditions, such as the continuous display of a static image over a prolonged period of time, can result in phosphor burn if proper precautions are not taken. To protect your investment in this plasma monitor, please adhere to the following guidelines and recommendations for minimizing the occurrence of image burn:

- * Always enable and use your computer's screen saver function during use with a computer input source.
- * Display a moving image whenever possible.
- * Change the position of the menu display from time to time.
- * Always power down the monitor when you are finished using it.

If the plasma monitor is in long term use or continuous operation take the following measures to reduce the likelihood of phosphor burn:

- * Lower the Brightness and Contrast levels as much as possible without impairing image readability.
- * Display an image with many colors and color gradations (i.e. photographic or photo-realistic images).
- * Create image content with minimal contrast between light and dark areas, for example white characters on black backgrounds. Use complementary or pastel color whenever possible.
- * Avoid displaying images with few colors and distinct, sharply defined borders between colors.

* Note: Burn-in is not covered by the warranty.

Contact your dealer for other recommended procedures that will best suit your particular application needs.

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Troubleshooting E-36

Contents of the Package

- ☐ Plasma monitor
- ☐ Power cord
- ☐ Remote control with two AAA Batteries
- ☐ Manuals (Model Information and Operation)
- ☐ Safety metal fittings*
- ☐ Ferrite cores, bands
- ☐ Cable clamps

* Contents will differ according to the model.

* These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws (see page E-4).

Options

- Wall mount unit
- Ceiling mount unit
- Tilt mount unit
- Stand
- Attachable speakers

Installation

You can attach your optional mounts or stand to the plasma monitor in one of the following two ways:

- * While it is upright. (See Drawing A)
- * As it is laid down with the screen face down (See Drawing B). Lay the protective sheet, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.
- * Do not touch or hold the screen face when carrying the unit.

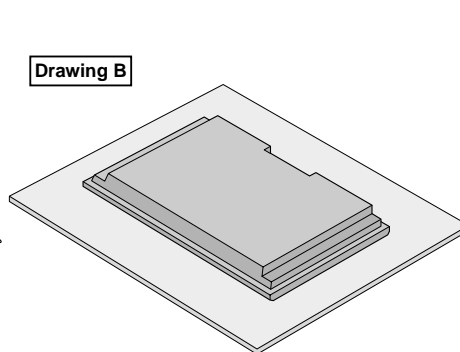
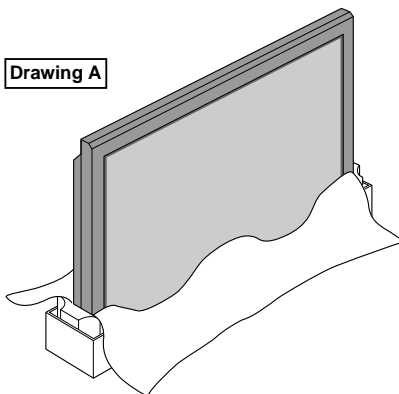
• **This device cannot be installed on its own. Be sure to use a stand or original mounting unit. (Wall mount unit, Stand, etc.)**

* See page E-3.

• **For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.**

Failure to follow correct mounting procedures could result in damage to the equipment or injury to the installer.

Product warranty does not cover damage caused by improper installation.

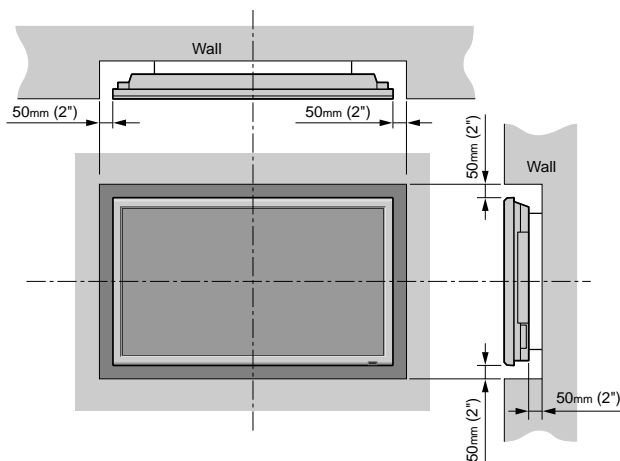


When installing or carrying, use the handles attached to the upper back of the display.



Ventilation Requirements for enclosure mounting

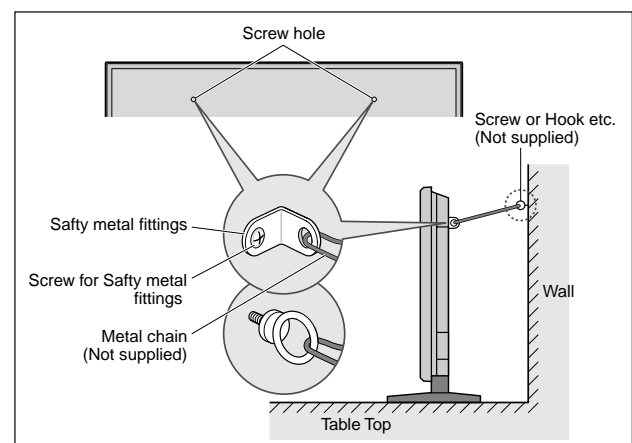
To allow heat to disperse, leave space between surrounding objects as shown on the diagram below when installing.



How to use the safety metal fittings and the screws for safety metal fittings

These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws.

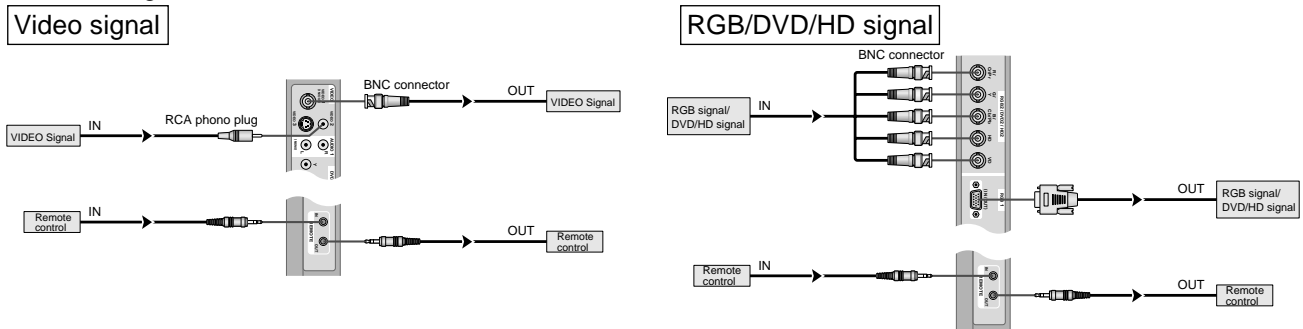
* Safety metal fittings will differ according to the model.



Creating a video wall

With built-in matrix display capability, you can create a 4-25 video wall.

- Connect signal cables and remote cables as shown below.



Note:

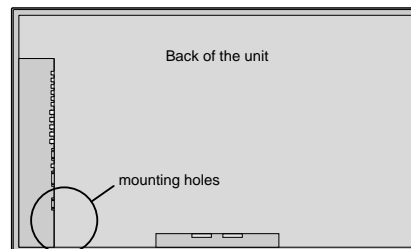
- The VIDEO1 and RGB1 terminals can be used for either INPUT or OUTPUT.
When LOOP OUT is ON, do not connect an OUTPUT signal from another unit, that will place an extraordinary load on the other unit and may damage it.
- LOOP OUT can not be turned ON while signals are input to the RGB1 terminal.
- LOOP OUT can be turned ON while signals are input to the RGB1 terminal if the POWER is switched ON.

Information

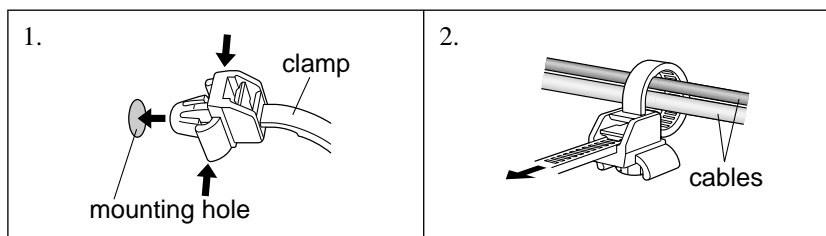
- To loop signals out to another plasma display, set the LOOP OUT to ON.
- To create a video wall, set the VIDEO WALL menu items properly.
- To connect monitors, please use a 1~2m (3.3~6.6 feet) BNC cable (any commercially available cable).
- If the image quality is poor, do not use the monitor's out terminal. Use a distribution amplifier (any commercially available distribution amplifier) to connect the split signals to the respective monitor INPUT terminals.
- Being used as a video wall function, maximally 4-screen is rough-standard with lower than 1024×768, 60Hz signal.
- A distribution amplifier is particularly recommended when using 9-screen and over video wall.
- From the second monitor onward, connections require a BNC-RCA conversion cable or connector, a mini D-Sub 15 pin cable-BNC (×5) cable or a conversion connector.

Cable Management

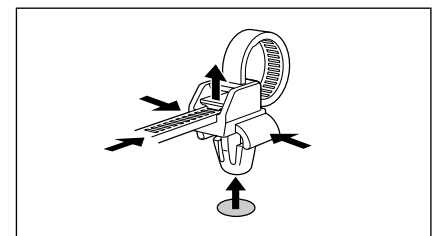
Using the cable-clamps provided with the plasma display, bundle at the back of the unit the signal and audio cables connected to the display.



To attach

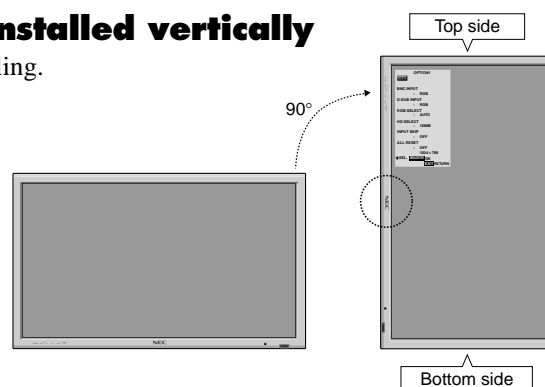


To detach



Caution on when the plasma monitor is installed vertically

- Use the optional unit. Contact your store of purchase when installing.
 - Rotate 90° clockwise as seen from the front when installing.
 - After installing, check with the NEC logo mark as seen from the front.
 - Be sure to set “OSM ANGLE” to “V” when using.
- * Failure to heed the above cautions may lead to malfunction.

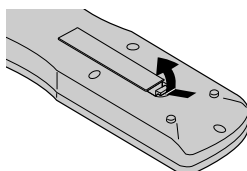


How to use the remote control

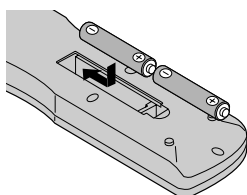
Battery Installation and Replacement

Insert the 2 “AAA” batteries, making sure to set them in with the proper polarity.

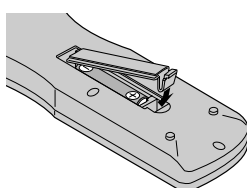
1. Press and open the cover.



2. Align the batteries according to the (+) and (–) indication inside the case.



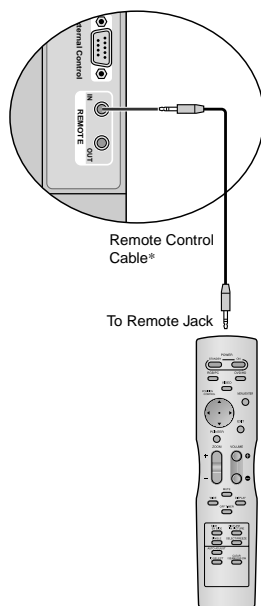
3. Replace the cover.



Using the wired remote control mode

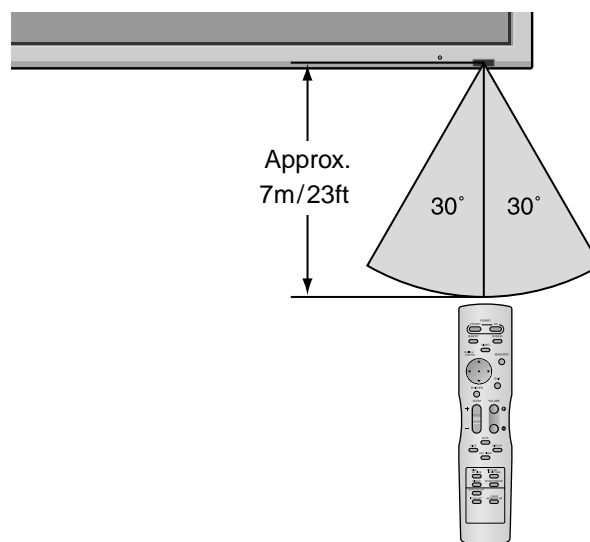
Connect the remote cable* to the remote control's remote jack and the “REMOTE IN” terminal on the monitor.

When the cable is connected, the mode automatically switches to wired remote control. When the wired remote control mode is used, the remote control can be operated even if no batteries are loaded.



Operating Range

- * Use the remote control within a distance of about 7 m/23ft. from the front of the monitor's remote control sensor and at horizontal and vertical angles of up to approximately 30°.
- * The remote control operation may not function if the monitor's remote control sensor is exposed to direct sunlight or strong artificial light, or if there is an obstacle between the sensor and the remote control.



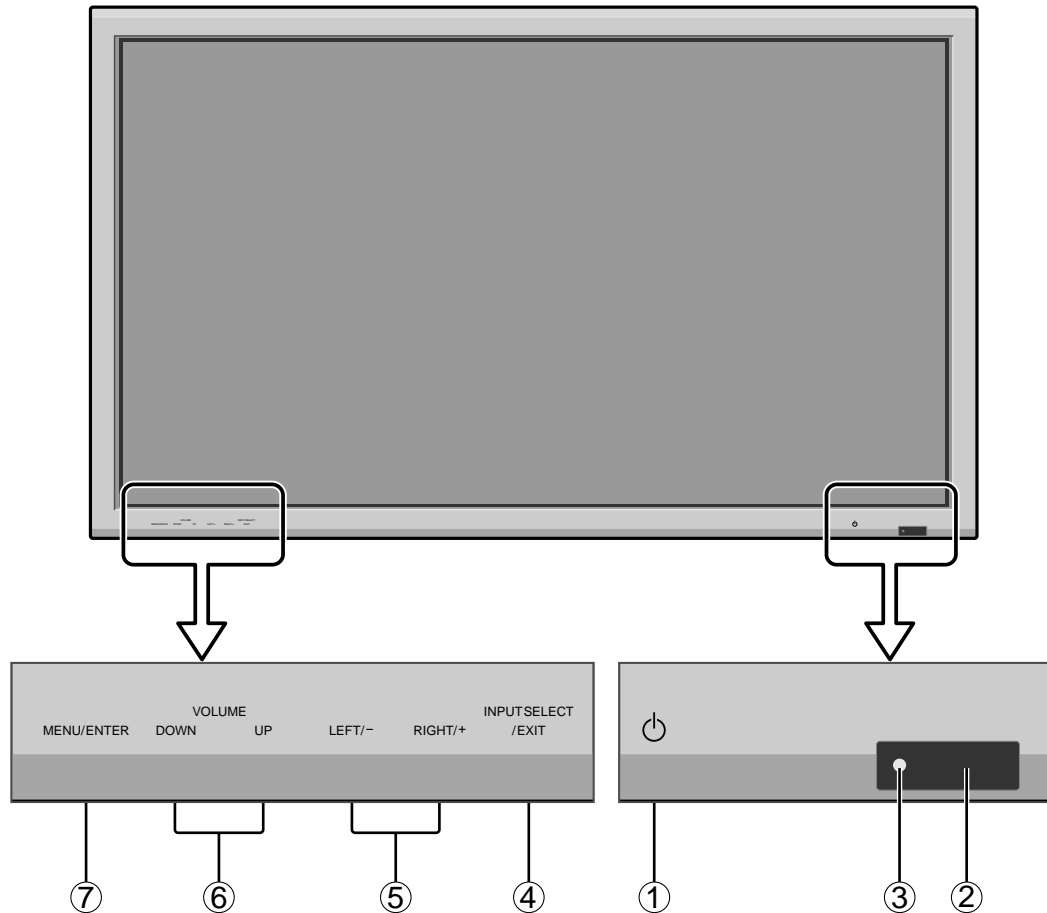
Handling the remote control

- Do not drop or mishandle the remote control.
- Do not get the remote control wet. If the remote control gets wet, wipe it dry immediately.
- Avoid heat and humidity.
- When not using the remote control for a long period, remove the batteries.
- Do not use new and old batteries together, or use different types together.
- Do not take apart the batteries, heat them, or throw them into a fire.
- When using the remote control in the wireless condition, be sure to unplug the remote cable from the REMOTE IN terminal on the monitor.

* The 1/8 Stereo Mini cable must be purchased separately.

Part Names and Function

Front View



- ① **Power**
Turns the monitor's power on and off.
- ② **Remote sensor window**
Receives the signals from the remote control.
- ③ **POWER/STANDBY indicator**
When the power is on Lights green.
When the power is in the standby mode ... Lights red.
- ④ **INPUT SELECT / EXIT**
Switches the input.
The available inputs depend on the settings of "BNC INPUT", "D-SUB INPUT", "RGB SELECT" and "DVI SET UP".
Functions as the EXIT buttons in the On-Screen Menu (OSM) mode.
- ⑤ **LEFT/~ and RIGHT/+**
Enlarges or reduces the image. Functions as the CURSOR (◀/▶) buttons in the On-Screen Menu (OSM) mode.
- ⑥ **VOLUME DOWN and UP**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Menu (OSM) mode.
- ⑦ **MENU/ENTER**
Sets the On-Screen Menu (OSM) mode and displays the main menu.

WARNING

The Power on/off switch does not disconnect the plasma display completely from the supply mains.

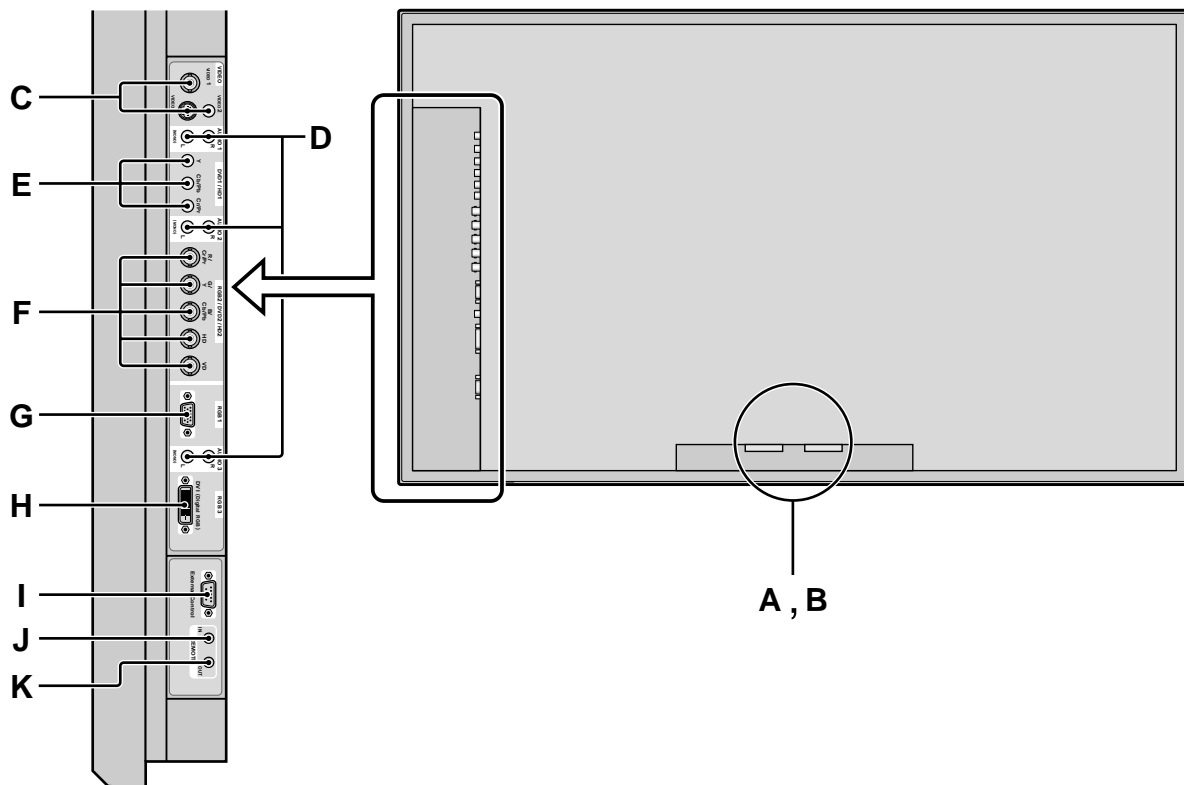
Note: This plasma monitor has the capacity to display images when connected to European DVD players with a SCART output signal, which is RGB with composite sync.

Your dealer can supply a special SCART cable, which will enable you to use the RGB with composite sync signal.

To obtain the special cable as well as for further information, please contact your dealer.

Please refer to page E-21 for selection of the correct mode in the on-screen manager.

Rear View/ Terminal Board



A AC IN

Connect the included power cord here.

B EXT SPEAKER L and R

Connect speakers (optional) here. Maintain the correct polarity. Connect the \oplus (positive) speaker wire to the \oplus EXT SPEAKER terminal and the \ominus (negative) speaker wire to the \ominus EXT SPEAKER terminal on both LEFT and RIGHT channels.

Please refer to your speaker's owner's manual.

C VIDEO1, 2, 3 (BNC, RCA, S-Video)

Connect VCR's, DVD's or Video Cameras, etc. here. VIDEO1 can be used for Input or Output (see page E-5).

D AUDIO1, AUDIO2, AUDIO3

These are audio input terminals.

The input is selectable. Set which video image to allot them from the audio menu screen.

E DVD1 / HD1

Connect DVD's, High Definition or Laser Discs, etc. here.

F RGB2/ DVD2/ HD2

RGB2: You can connect an analog RGB signal and the synchronization signal.

DVD2/ HD2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.

This input can be set for use with an RGB or component source (see page E-21)

G RGB1 (mini D-Sub 15pin)

Connect an analog RGB signal from a computer, etc. here. This input can be used for Input or Output. (see page E-5)

H RGB3 (DVI 24pin)

Connect a digital signal (TMDS) from a source with a DVI output.

This input can be set for use with an RGB/PC3 (see page E-26)

I EXTERNAL CONTROL

This terminal is used when operating and controlling the monitor externally (by RS-232C).

J REMOTE IN

Connect the remote cable* to the remote control's remote jack to obtain wired remote control.

K REMOTE OUT

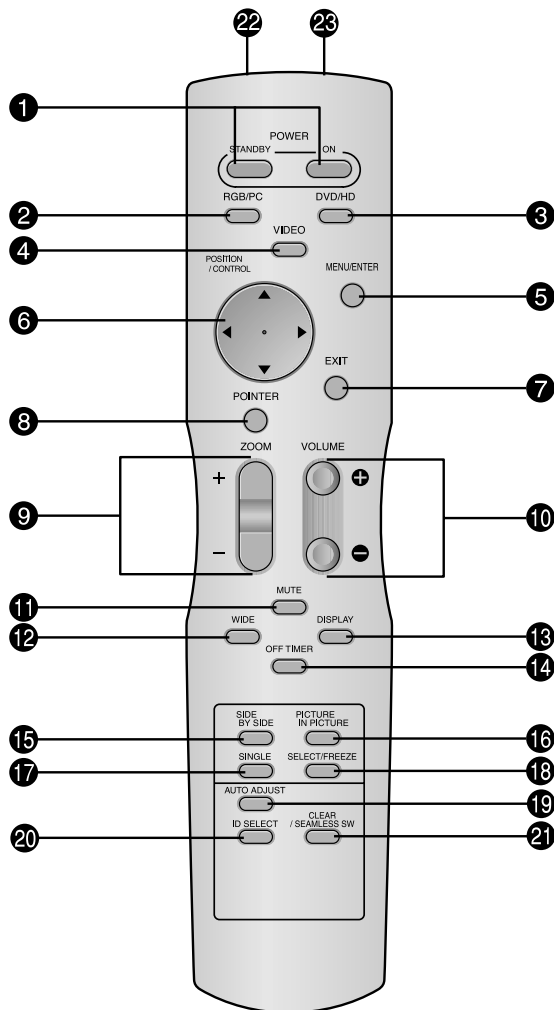
Connect the remote cable* to the REMOTE IN jack of the other display monitor to obtain wired remote control.

* The 1/8 Stereo Mini cable must be purchased separately.

Information

- For Y/CB/Cr, connect to the DVD1 or DVD2 terminals.
- For SCART, this unit provides three ways to connect:
 - SCART1: Connect R/G/B to the DVD2 terminals and composite sync. to the HD terminal.
 - SCART2: Connect R/G/B to the DVD2 terminals and composite sync. to the VIDEO1 terminal.
 - SCART3: Connect R/G/B + composite sync. to the RGB1 terminal.

Remote Control



1 POWER ON/STANDBY

Switches the power on/standby.
(This does not operate when POWER/STANDBY indicator of the main unit is off.)

2 RGB/PC

Press this button to select RGB/PC as the source.
RGB/PC can also be selected using the INPUT SELECT button on the monitor.

3 DVD / HD

Press this button to select DVD/HD as the source.
DVD/HD can also be selected using the INPUT SELECT button on the monitor.

4 VIDEO

Press this button to select VIDEO as the source.

→ VIDEO1 → VIDEO2 → VIDEO3

VIDEO can also be selected using the INPUT SELECT button on the monitor.

5 MENU/ENTER

Press this button to access the OSM controls.
Press this button during the display of the main menu to go to the sub menu.

6 CURSOR (▲ / ▼ / ◀ / ▶)

Use these buttons to select items or settings and to adjust settings or switch the display patterns.

7 EXIT

Press this button to exit the OSM controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.

8 POINTER

Press this button to display the pointer.

9 ZOOM (+ / -)

Enlarges or reduces the image.

10 VOLUME (+ / -)

Adjusts the audio volume.

11 MUTE

Mutes the audio.

12 WIDE

Automatically detects the signal and sets the aspect ratio.
Wide button is not active for all signals.

13 DISPLAY

Displays the source settings on the screen.

14 OFF TIMER

Activates the off timer for the unit.

15 SIDE BY SIDE

Press this button to show a couple of pictures in the side-by-side mode.

16 PICTURE IN PICTURE

Press this button to show a couple of pictures in the picture-in-picture mode.

17 SINGLE

Cancels the split screen mode.

18 SELECT/FREEZE

Press this button to select the active picture in a split screen mode.

When the PIC FREEZE function is operating, this button can be used to display still images on the sub screen.

19 AUTO ADJUST

Press this button to adjust Fine Picture, Picture ADJ, Position, and Contrast automatically, or to switch the screen size to ZOOM mode automatically with the superimposed caption displayed fully only when the picture contains dark areas above and below the picture.

20 ID SELECT

Set the ID number in the remote control. The remote control can then be used only for a display with the same ID number. When several displays are used together they can be controlled individually.

21 CLEAR/SEAMLESS SW

Clears the number set by the ID SELECT button. When the SEAMLESS SW function is operating, this button can be used to switch the input source quickly.

22 Remote control signal transmitter

Transmits the remote control signals.

23 Remote Jack

Insert the plug of the remote cable (The 1/8 Stereo Mini cable) here when using the supplied remote control in the wired condition.

Basic Operations

POWER

To turn the unit ON and OFF:

1. Plug the power cord into an active AC power outlet.
2. Press the Power button (on the unit).
The monitor's POWER/STANDBY indicator turns red and the standby mode is set.
3. Press the POWER ON button (on the remote control) to turn on the unit.
The monitor's POWER/STANDBY indicator will light up (green) when the unit is on.
4. Press the POWER STANDBY button (on the remote control) or the Power button (on the unit) to turn off the unit.
The monitor's POWER/STANDBY indicator turns red and the standby mode is set (only when turning off the unit with the remote control).

VOLUME

To adjust the sound volume:

1. Press and hold the VOLUME \oplus button (on the remote control or the unit) to increase to the desired level.
2. Press and hold the VOLUME \ominus button (on the remote control or the unit) to decrease to the desired level.

MUTE

To mute the audio:

Press the MUTE button on the remote control to mute the audio; press again to restore.


DISPLAY

To check the settings:


1. The screen changes each time the DISPLAY button is pressed.
2. If the button is not pressed for approximately three seconds, the menu turns off.

DIGITAL ZOOM

Digital zoom specifies the picture position and enlarges the picture.

1. (Be sure ZOOM NAV is off.)
Press the POINTER button to display the pointer. ()

To change the size of the picture:

Press the ZOOM+ button and enlarge the picture.
The pointer will change to resemble a magnifying glass. ()

A press of the ZOOM- button will reduce the picture and return it to its original size.

To change the picture position:

- Select the position with the $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$ buttons.
2. Press the POINTER button to delete the pointer.

AUTO ADJUST

To adjust the size or quality of the picture automatically:

Press the AUTO ADJUST button.

Information

■ AUTO ADJUST ON setting

When RGB (still picture) input is selected:
Fine Picture, Picture ADJ, Position, and Contrast will be adjusted automatically.

When RGB (motion picture), VIDEO, or Y/Pb/Pr (component) input is selected: The screen size switches to ZOOM mode automatically with the superimposed caption displayed fully only when the picture contains dark areas above and below the picture.

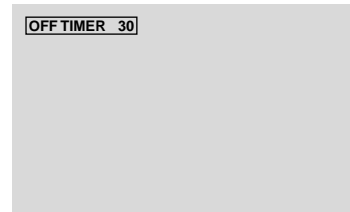
OFF TIMER

To set the off timer:

The off timer can be set to turn the power off after 30, 60, 90 or 120 minutes.

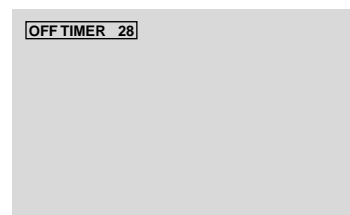
1. Press the OFF TIMER button to start the timer at 30 minutes.
2. Press the OFF TIMER button to the desired time.
3. The timer starts when the menu turns off.

→ 30 → 60 → 90 → 120 → 0



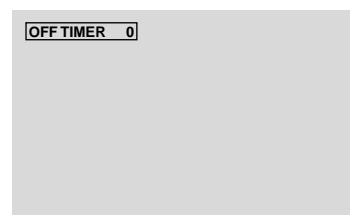
To check the remaining time:

1. Once the off timer has been set, press the OFF TIMER button once.
2. The remaining time is displayed, then turns off after a few seconds.
3. When five minutes remain the remaining time appears until it reaches zero.



To cancel the off timer:

1. Press the OFF TIMER button twice in a row.
2. The off timer is canceled.



Note:

*After the power is turned off with the off timer ...
A slight current is still supplied to the monitor. When you are leaving the room or do not plan to use the system for a long period of time, turn off the power of the monitor.*

WIDE Operations

Wide Screen Operation (manual)

With this function, you can select one of six screen sizes.

When viewing videos or digital video discs

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

The screen size switches as follows:

→ **NORMAL** → **FULL** → **STADIUM** → **ZOOM** → **2.35:1** → **14:9** →

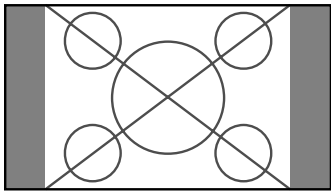
When a 720P or 1080I signal is input:

FULL ↔ **2.35:1**

When displaying enhanced split screen:

NORMAL ↔ **FULL**

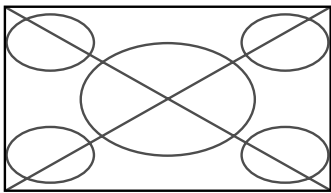
NORMAL size screen (4:3)



The normal size screen is displayed.

- * The picture has the same size as video pictures with a 4 : 3 aspect ratio.

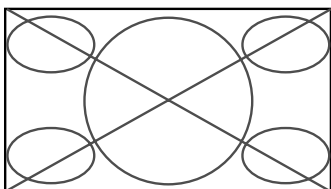
FULL size screen



The image is expanded in the horizontal direction.

- * Images compressed in the horizontal direction ("squeezed images") are expanded in the horizontal direction and displayed on the entire screen with correct linearity. (Normal images are expanded in the horizontal direction.)

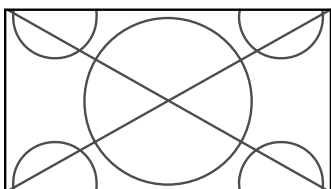
STADIUM size screen



The picture is expanded in the horizontal and vertical directions at different ratios.

- * Use this for watching normal video programs (4:3) with a wide screen.

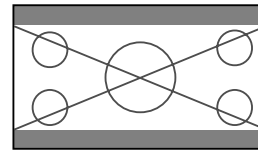
ZOOM size screen



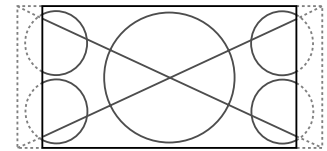
The picture is expanded in the horizontal and vertical direction, maintaining the original proportions.

- * Use this for theater size (wide) movies, etc.

2.35:1 size screen



Original image



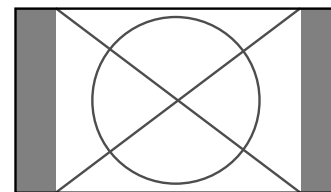
Information is lost on both sides.

The squeezed film image is expanded to fulfill the entire screen at a ratio of 2.35:1. Black bands do not appear at the top and bottom but information is lost on the left and right margins.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P, 720P, 1080I) or RGB (525P or 625P signal from a scan converter).

- * If black bands appear on the top and bottom in the full size screen, select the 2.35:1 size screen to avoid phosphor burn-in.

14:9 size screen



The image is displayed at a 14:9 aspect ratio.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P) or RGB (525P or 625P signal from a scan converter).



Note:

Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

Wide Screen Operation with Computer Signals

Switch to the wide screen mode to expand the 4 : 3 image to fill the entire screen.

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

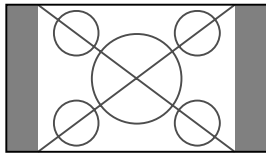
The screen size switches as follows:

→ **NORMAL** → **FULL** → **ZOOM**

When displaying enhanced split screen:

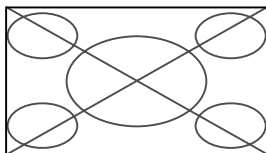
NORMAL ↔ **FULL**

NORMAL size screen (4:3 or SXGA 5:4)



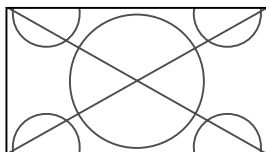
The picture has the same size as the normal computer image.

FULL size screen



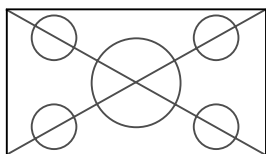
The image is expanded in the horizontal direction.

ZOOM size screen



When wide signals are input.

FULL size screen

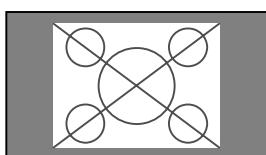


When “PICTURE SIZE” is set to “OFF”

The screen size switches as follows:

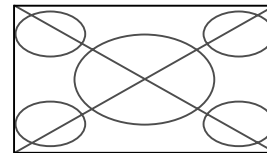
→ **TRUE** → **FULL** → **ZOOM**

TRUE size screen (VGA, SVGA 4:3)



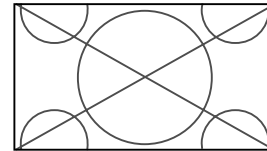
The image is true resolution.

FULL size screen



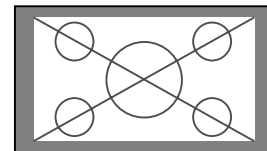
The image is expanded in the horizontal and vertical direction.

ZOOM size screen



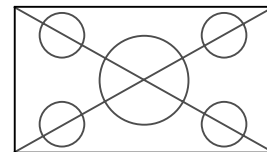
When wide signals are input.

TRUE



The image is true resolution.

FULL



Information

■ Supported resolution

See page E-2 of Model Information for details on the display output of the various VESA signal standards supported by the monitor.

■ “PICTURE SIZE” setting

When the setting of “PICTURE SIZE” is OFF, the size of RGB-input pictures will be TRUE in place of NORMAL.

■ When 852 (848) dot × 480 line wide VGA* signals with a vertical frequency of 60 Hz and horizontal frequency of 31.7 (31.0) kHz are input

Select an appropriate setting for RGB SELECT mode referring to the “Table of Signals Supported” on page E-2 of Model Information.

* “VGA”, “SVGA” and “SXGA” are registered trademarks of IBM, Inc. of the United States.

Note:

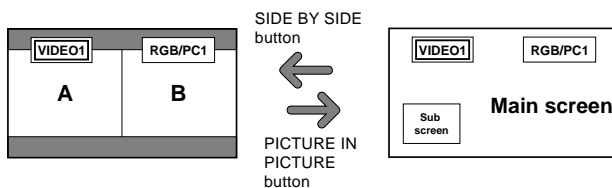
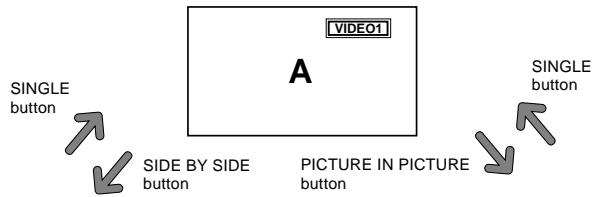
Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

SPLIT SCREEN Operations

Showing a couple of pictures on the screen at the same time

* An RGB-input picture may not be displayed in these modes, depending on the input signal specifications.

1. Press the button to select a screen mode from among single mode, side-by-side, and picture-in-picture.



Note:

Picture A and B on the above screen are not always of the same height.

Information

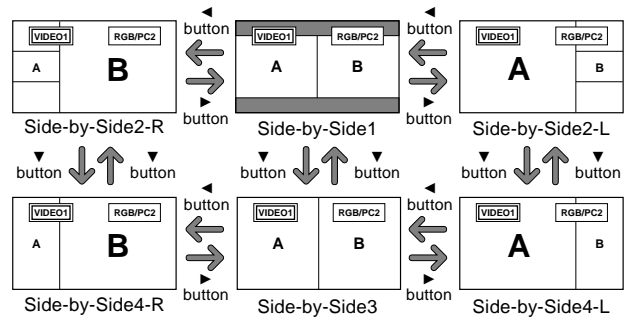
Split screen operations may not function depending on the combination of input signals. In the table below, "○" means Yes, "×" means No.

	Pictures displayed on the right/main screen (Select1)							
	VIDEO1	VIDEO2	VIDEO3	HD/DVD1	HD/DVD2	RGB/PC1	RGB3	SCART1-3
Pictures displayed on the left/sub screen (Select2)								
VIDEO1	×	×	×	○	○	○	○	×
VIDEO2	×	×	×	○	○	○	○	×
VIDEO3	×	×	×	○	○	○	○	×
HD/DVD1	○	○	○	×	○	○	○	○
HD/DVD2	○	○	○	○	×	○	○	1.2:×
RGB2	○	○	○	○	○	×	○	1.2:○
RGB/PC1	○	○	○	○	○	×	○	3:×
RGB3	○	○	○	○	○	○	×	○
SCART1-3	×	×	×	○	1.2:×	1.2:○	○	×
					3:○	3:×		

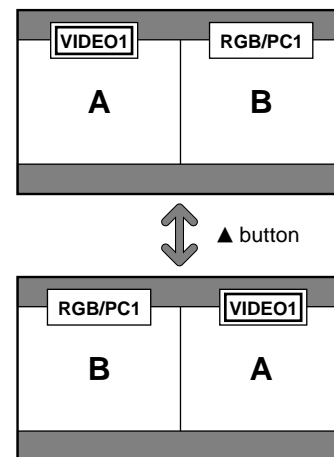
■ Split screen operations may not function depending on the type of the RGB signals.

Operations in the Side-by-side mode

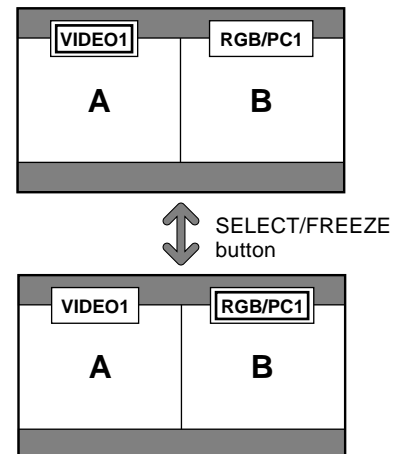
To change the picture size, press the cursor ◀▶ or ▼ button.



To swap the picture on the right and the left, press the cursor ▲ button.

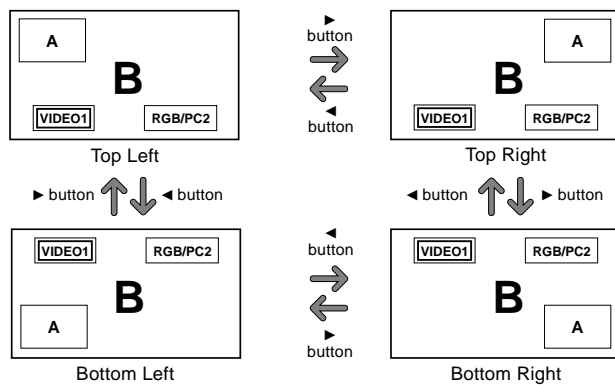


To make the desired picture active, press the SELECT/FREEZE button.

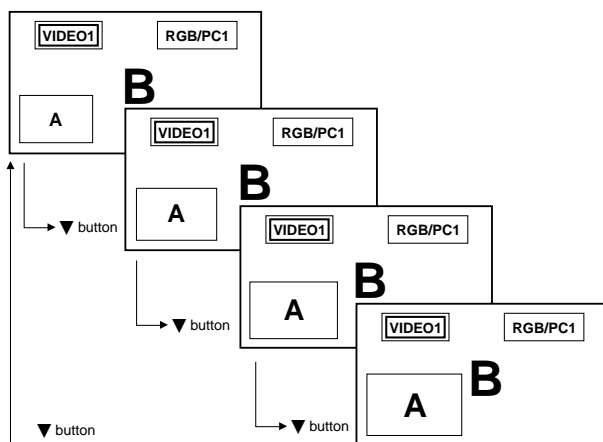


Operations in the Picture-in-picture mode

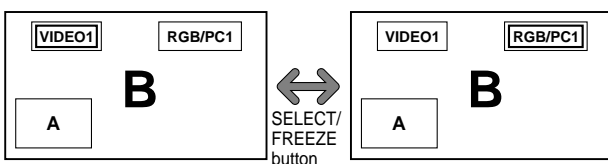
To move the position of the sub screen, press the cursor ◀ or ▶ button.



To change the size of the sub screen, press the ▼ button.



To make the desired picture active, press the SELECT/FREEZE button.



Selecting the input signals to be displayed

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Press the RGB/PC, VIDEO, or DVD/HD button. Each press of the button changes the selection of the input signal. The INPUT SELECT button on the monitor can also be used to change the selection.

Zooming up pictures

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Use the POINTER button and the ZOOM + / - button to enlarge the picture. For details, see "DIGITAL ZOOM" on page E-10.

Adjusting the OSM controls

1. Press the SELECT/FREEZE button to make the desired picture active.
2. Press the MENU/ENTER button to display the MAIN MENU.
3. Adjust the setting to your preference. For details, see "OSM (On Screen Menu) Controls" on page E-15.

Note:

During enhanced split screen mode, some functions of OSM controls are not available.

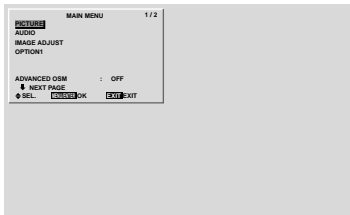
OSM(On Screen Menu) Controls

Menu Operations

The OSM window is displayed with respect to the screen as shown on the diagram.

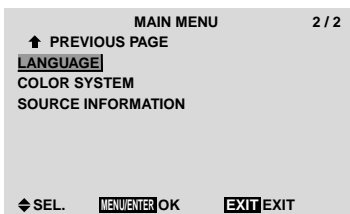
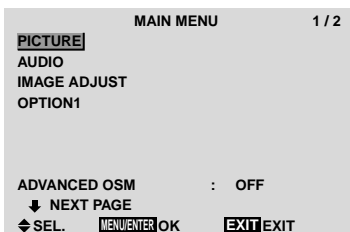
- * Depending on the screen's mode, the OSM may be displayed differently.

In the explanation, the OSM section is shown close up.

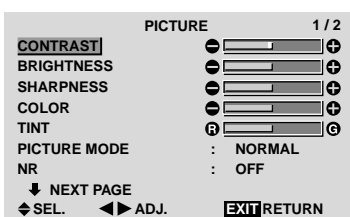


The following describes how to use the menus and the selected items.

1. Press the MENU/ENTER button on the remote control to display the MAIN MENU.



2. Press the cursor buttons ▲ ▼ on the remote control to highlight the menu you wish to enter.
3. Press the MENU/ENTER button on the remote control to select a sub menu or item.



4. Adjust the level or change the setting of the selected item by using the cursor buttons ◀ ▶ on the remote control.
5. The adjustments or the settings that are stored in memory. The change is stored until you change it again.
6. Repeat steps 2 – 5 to adjust an additional item, or press the EXIT button on the remote control to return to the main menu.

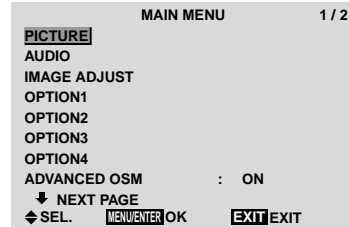
- * When adjusting using the bar at the bottom of the screen, press the ◀ or ▶ button within 5 seconds. If not, the current setting is set and the previous screen appears.

Note: The main menu disappears by pressing the EXIT button.

Information

■ Advanced menu mode


When “ADVANCED OSM” is set to “ON” in the main menu (1/2), full menu items will be shown.



Menu Tree

 : Shaded areas indicate the default value.

— ◀ → + : Press the ◀ or ▶ button to adjust. The default value is at the center.

 : Menu items in a ruled box are available when the ADVANCED OSM is set to ON.

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
PICTURE	CONTRAST	— ◀ → + 0 ◀ 52 → 72			YES	E-18
	BRIGHTNESS	— ◀ → + 0 ◀ 32 → 64			YES	E-18
	SHARPNESS	— ◀ → + 0 ◀ 16 → 32			YES	E-18
	COLOR	— ◀ → + 0 ◀ 32 → 64			YES	E-18
	TINT	R ◀ → G 0 ◀ 32 → 64			YES	E-18
	PICTURE MODE	BRIGHT/NORMAL/THEAT.1/THEAT.2/DEFAULT			YES	E-18
	NR	OFF/NR-1/NR-2/NR-3			YES	E-18
	COLOR TEMP	LOW/MID LOW/MID/HIGH			YES	E-18
	WHITE BALANCE	GAIN RED — ◀ → + 0 ◀ → 70			YES	E-19
		GAIN GREEN — ◀ → + 0 ◀ → 70			YES	E-19
		GAIN BLUE — ◀ → + 0 ◀ → 70			YES	E-19
		BIAS RED — ◀ → + 0 ◀ → 70			YES	E-19
		BIAS GREEN — ◀ → + 0 ◀ → 70			YES	E-19
		BIAS BLUE — ◀ → + 0 ◀ → 70			YES	E-19
		RESET OFF ◀ → ON			YES	E-19
	GAMMA	1 ◀ → 2 ◀ → 3 ◀ → 4			YES	E-19
	LOW TONE	AUTO ◀ → 1 ◀ → 3			YES	E-19
	COLOR TUNE	RED Y ◀ → M 0 ◀ → 64			YES	E-19
		GREEN C ◀ → Y 0 ◀ → 64			YES	E-19
		BLUE M ◀ → C 0 ◀ → 64			YES	E-19
		YELLOW G ◀ → R 0 ◀ → 64			YES	E-19
		MAGENTA R ◀ → B 0 ◀ → 64			YES	E-19
		CYAN B ◀ → G 0 ◀ → 64			YES	E-19
		RESET OFF ◀ → ON			YES	E-19

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
AUDIO	BASS	— ◀ → + 0 ◀ 13 → 26			YES	E-20
	TREBLE	— ◀ → + 0 ◀ 13 → 26			YES	E-20
	BALANCE	L ◀ → R -22 ◀ 0 → +22			YES	E-20
	AUDIO INPUT1	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	E-20
	AUDIO INPUT2	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	E-20
	AUDIO INPUT3	VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3			YES	E-20

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
IMAGE ADJUST	ASPECT MODE	NORMAL/FULL/STADIUM/ZOOM/2.35:1/14:9			—	E-20
	V-POSITION	— ◀ → + -64 ◀ 0 → +64			YES	E-20
	H-POSITION	— ◀ → + -128 ◀ 0 → +127			YES	E-20
	V-HEIGHT	— ◀ → + 0 ◀ → 64			YES	E-20
	H-WIDTH	— ◀ → + 0 ◀ → 64			YES	E-20
	AUTO PICTURE	OFF ◀ → ON*2			NO	E-20
	FINE PICTURE*1	— ◀ → + *2 0 ◀ → 64			YES	E-20
	PICTURE ADJ.*1	— ◀ → + *2 0 ◀ → 128			YES	E-20

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION1	OSM	DISPLAY OSM	OFF ◀ → ON		YES	E-21
		OSM ADJ.	1 ◀ → 6		YES	E-21
		OSM ANGLE	H ◀ → V		YES	E-21
		OSM ORBITER	OFF ◀ → ON		YES	E-21
		OSM CONTRAST	LOW ◀ → NORMAL		YES	E-21
		BNC INPUT	RGB ◀ → COMP. ◀ → SCART1 ◀ → SCART2		YES	E-21
	D-SUB INPUT	RGB ◀ → SCART3			—	E-21
	RGB SELECT	AUTO/STILL/MOTION/WIDE1/WIDE2/WIDE3/DTV			YES	E-21
	HD SELECT	1080B/1035I/1080A			NO	E-22
	INPUT SKIP	OFF ◀ → ON			YES	E-22
	ALL RESET	OFF ◀ → ON			—	E-22

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION2	PWR. MGT.	OFF↔ON			YES	E-23
	CINEMA MODE	OFF↔ON			YES	E-23
	LONG LIFE	PLE	AUTO/LOCK 1/LOCK 2/LOCK 3		YES	E-23
		ORBITER	AUTO 1		YES	E-24
			AUTO 2		YES	E-24
			MANUAL	H-DOT/V-LINE/TIME	YES	E-24
			OFF		YES	E-24
	INVERSE	OFF			YES	E-24
		ON	WORKING TIME/WAITING TIME		YES	E-24
		WHITE			YES	E-24
	SCREEN WIPER	OFF			YES	E-25
		ON	WORKING TIME/WAITING TIME/SPEED		YES	E-25
	SOFT FOCUS	OFF/1/2/3/4			YES	E-25
	GRAY LEVEL	0↔3↔15			YES	E-25
	S1/S2	AUTO↔OFF			YES	E-25
	PICTURE SIZE	OFF↔ON			YES	E-26
	DVI SET UP	PLUG/PLAY	PC↔STB/DVD		NO	E-26
		BLACK LEVEL	LOW↔HIGH		NO	E-26

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION3	TIMER	PRESENT TIME	SUMMER TIME	OFF↔ON	NO	E-26
			DAY/HOUR/MINUTES		NO	E-26
		PROGRAM	OFF		YES	E-27
			ON	DATE/ON/OFF(HOUR, MINUTE)/INPUT/FUNCTION	YES	E-27
		MULTI REPEAT	OFF		YES	E-27
			ON	MULTI MODE/WORK TIME/INPUT MODE	YES	E-27
		PWR. ON MODE	LAST /MULTI/ VIDEO 1-3 / HD/DVD 1-2 / RGB 1-3		YES	E-28
		CONTROL LOCK	OFF↔ON		YES	E-28
		IR REMOTE	OFF↔ON		YES	E-28
		LOOP OUT	OFF↔ON		YES	E-28
	ID NUMBER	ALL↔1↔256			YES	E-29
	VIDEO WALL	DIVIDER	OFF/1/4/9/16/25		YES	E-29
		POSITION	No.1↔No.4/No.7↔No.15/No.16↔No.31/No.32↔No.56		—	E-29
		DISP. MODE	SPLIT↔BLANK		YES	E-30
		AUTO ID	OFF↔ON		YES	E-30
		IMAGE ADJUST	ASPECT MODE	NORMAL/FULL/STADIUM/ZOOM/2.35:1/14:9	—	E-30
			V-POSITION	←→+ -64↔0↔+64	YES	E-30
			H-POSITION	←→+ -128↔0↔+127	YES	E-30
			V-HEIGHT	←→+ 0↔64	YES	E-30
			H-WIDTH	←→+ 0↔64	YES	E-30
			AUTO PICTURE	OFF↔ON*2	NO	E-30
			FINE PICTURE*1	←→+ *2 0↔64	YES	E-30
			PICTURE ADJ.*1	←→+ *2 0↔128	YES	E-30
		P. ON DELAY	OFF/ON/MODE1/MODE2		YES	E-30
		PLE LINK	OFF↔ON		YES	E-31
		REPEAT TIMER	OFF		YES	E-31
			ON	DIVIDER/SOURCE/WORK TIME	YES	E-31

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
OPTION4	SUB P. DETECT	OFF↔AUTO			YES	E-32
	ZOOM NAV	OFF↔S BY S↔BTM LFT↔BTM RGT↔TOP RGT↔TOP LFT			YES	E-32
	PIC FREEZE	OFF↔S BY S1↔S BY S2↔BTM LFT↔BTM RGT↔TOP RGT↔TOP LFT			YES	E-32
	SEAMLESS SW	OFF			YES	E-33
		ON	SELECT1/SELECT2		YES	E-33

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
ADVANCED OSM	OFF↔ON				YES	E-33
LANGUAGE	ENGLISH/DEUTSCH/FRANÇAIS/ESPAÑOL/ITALIANO/SVENSKA/中文/РУССКИЙ				NO	E-33
COLOR SYSTEM	AUTO/3.58NTSC/4.43 NTSC/PAL/PAL 60/PAL-N/PAL-M/SECAM				NO	E-34
SOURCE INFORMATION	—				—	E-34

*1 Only when AUTO PICTURE is OFF

*2 RGB/PC only

Information

■ Restoring the factory default settings

Select “ALL RESET” under the OPTION1 menu. Note that this also restores other settings to the factory defaults.

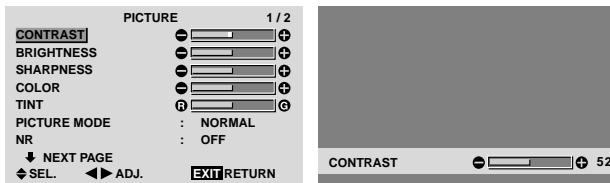
Picture Settings Menu

Adjusting the picture

The contrast, brightness, sharpness, color and tint can be adjusted as desired.

Example: Adjusting the contrast

On “CONTRAST” of “PICTURE” menu, adjust the contrast.



Note: If “CAN NOT ADJUST” appears ...
When trying to enter the PICTURE submenu, make sure PICTURE MODE is not set to DEFAULT.

Information

Picture adjustment screen

CONTRAST: Changes the picture’s white level.

BRIGHTNESS: Changes the picture’s black level.

SHARPNESS: Changes the picture’s sharpness.
Adjusts picture detail of VIDEO display.

COLOR: Changes the color density.

TINT: Changes the picture’s tint. Adjust for natural colored skin, background, etc.

Adjusting the computer image

Only the contrast and brightness can be adjusted when a computer signal is connected.

Restoring the factory default settings

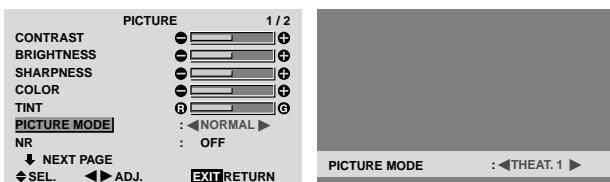
Select “DEFAULT” under the “PICTURE MODE” settings.

Setting the picture mode according to the brightness of the room

There are four picture modes that can be used effectively according to the environment in which you are viewing the display.

Example: Setting the “THEAT. 1” mode

On “PICTURE MODE” of “PICTURE” menu, select “THEAT. 1”.



Information

Types of picture modes

THEAT. 1, 2: Set this mode when watching video in a dark room.

This mode provides darker, finer pictures, like the screen in movie theaters.

For a darker image, select THEAT. 2.

NORMAL: Set this mode when watching video in a bright room.

This mode provides dynamic pictures with distinct differences between light and dark sections.

BRIGHT: This mode provides brighter pictures than NORMAL.

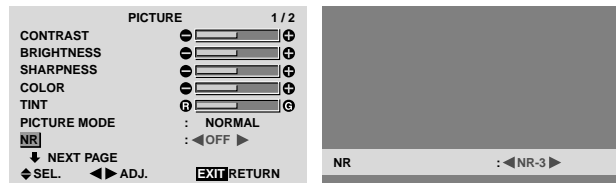
DEFAULT: Use this to reset the picture to the factory default settings.

Reducing noise in the picture

Use these settings if the picture has noise due to poor reception or when playing video tapes on which the picture quality is poor.

Example: Setting “NR-3”

On “NR” of “PICTURE” menu, select “NR-3”.



Information

NR

* “NR” stands for Noise Reduction.

* This function reduces noise in the picture.

Types of noise reduction

There are three types of noise reduction. Each has a different level of noise reduction.

The effect becomes stronger as the number increases (in the order NR-1 → NR-2 → NR-3).

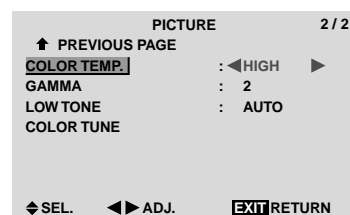
OFF: Turns the noise reduction function off.

Setting the color temperature

Use this procedure to set color tone produced by the plasma display.

Example: Setting “HIGH”

On “COLOR TEMP.” of “PICTURE” menu, select “HIGH”.



Information

Setting the color temperature

LOW: Redder

MID LOW: Slightly red

MID: Standard (slightly bluer)

HIGH: Bluer

Adjusting the color to the desired level

Use this procedure to adjust the white balance for each color temperature to achieve the desired color quality.

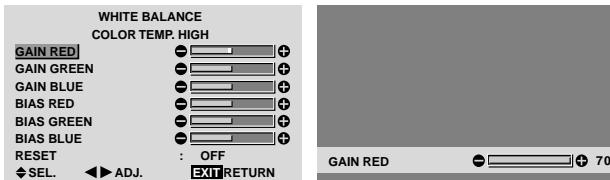
Example: Adjusting the “GAIN RED” of “HIGH” color temperature

Set “ADVANCED OSM” to “ON” in the main menu (1/2), then perform the following operations.

On “COLOR TEMP.” of “PICTURE” menu, select “HIGH”, then press the MENU/ENTER button.

The “WHITE BALANCE” screen appears.

On “GAIN RED”, adjust the white balance.



Information

■ Adjusting the white balance

GAIN R/G/B: White balance adjustment for white level

BIAS R/G/B: White balance adjustment for black level

RESET: Resets settings to the factory default values.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

■ Restoring the factory default settings

Select “RESET” under the WHITE BALANCE menu.

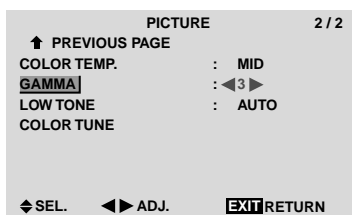
Changing the Gamma Curve

This feature adjusts the brightness of the midtone areas while keeping shadows and highlights unchanged.

Example: Setting “3”

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “GAMMA” of “PICTURE” menu, select “3”.



Information

■ GAMMA settings

The picture becomes darker as the number increases (in the sequence of 1, 2, 3, 4).

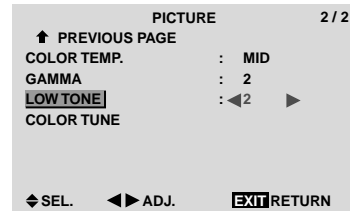
Making the Low Tone adjustments

This feature allows more detailed tone to be reproduced especially in the dark area.

Example: Setting “2”

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “LOW TONE” of “PICTURE” menu, select “2”.



Information

■ LOW TONE settings

AUTO: Will automatically appraise the picture and make adjustments.

1: Will apply the dither method suitable for still pictures.

2: Will apply the dither method suitable for motion pictures.

3: Will apply the error diffusion method.

Adjusting the colors

Use this procedure to adjust hue and color density for red, green, blue, yellow, magenta and cyan.

Such adjustments will not affect the other colors.

You can accentuate the green color of trees, the blue of the sky, etc.

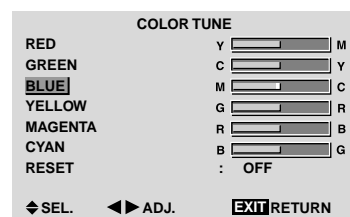
Example: Adjusting the color tune for blue

Set “ADVANCED OSM” to “ON” in the MAIN MENU (1/2), then perform the following operations.

On “PICTURE” menu, select “COLOR TUNE”, then press the MENU/ENTER button.

The “COLOR TUNE” screen appears.

On “BLUE” of “COLOR TUNE”, adjust the color tune.



Information

■ COLOR TUNE settings

RED: Makes red’s adjustment

GREEN: Makes green’s adjustment

BLUE: Makes blue’s adjustment

YELLOW: Makes yellow’s adjustment

MAGENTA: Makes magenta’s adjustment

CYAN: Makes cyan’s adjustment

RESET: Resets settings to the factory default value.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

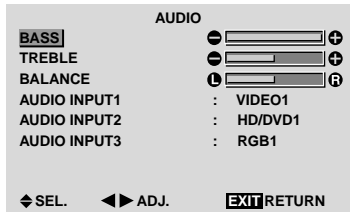
Audio Settings Menu

Adjusting the treble, bass and left/right balance and audio input select

The treble, bass and left/right balance can be adjusted to suit your tastes.

Example: Adjusting the bass

On “BASS” of “AUDIO” menu, adjust the bass.



Note : If “CAN NOT ADJUST” appears...
Set “AUDIO INPUT” on the AUDIO menu correctly.

Information

■ Audio settings menu

BASS: Controls the level of low frequency sound.
TREBLE: Controls the level of high frequency sound.
BALANCE: Controls the balance of the left and right channels.

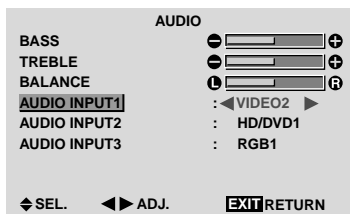
Setting the allocation of the audio connectors

Setting the AUDIO 1, 2, and 3 connectors to the desired input.

Example: Setting “AUDIO INPUT1” to “VIDEO 2”

On “AUDIO INPUT1” of “AUDIO” menu, select “VIDEO2”.

The available sources depend on the settings of input.



Information

■ AUDIO INPUT

A single audio input cannot be selected as the audio channel for more than one input terminal.

Image Adjust Settings Menu

Adjusting the Position, Size, Fine Picture, Picture Adj

The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position in the normal mode

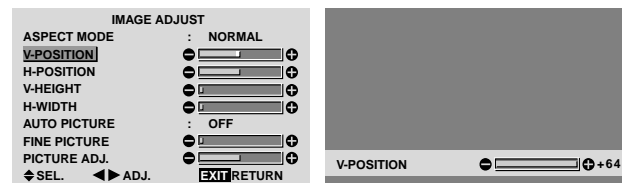
On “V-POSITION” of “IMAGE ADJUST” menu, adjust the position.

The mode switches as follows each time the ◀ or ▶ button is pressed:

NORMAL ↔ FULL

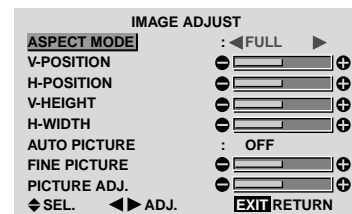
* The mode can also be switched by pressing the WIDE button on the remote control.

* The settings on the IMAGE ADJUST menu are not preset at the factory.



Information

■ When “AUTO PICTURE” is “OFF”



When Auto Picture is off, the Fine Picture and the Picture ADJ. items are displayed so that you can adjust them.

■ Adjusting the Auto Picture

ON: The Picture ADJ., Fine Picture and Position adjustments are made automatically.

Not available for digital ZOOM.

OFF: The Picture ADJ., Fine Picture and Position adjustments are made manually.

* If FINE PICTURE can't be adjusted, set Auto Picture to OFF and adjust manually.

■ Adjusting the position of the image

V-POSITION: Adjusts the vertical position of the image.

H-POSITION: Adjusts the horizontal position of the image.

V-HEIGHT: Adjusts the vertical size of the image. (Except for STADIUM mode)

H-WIDTH: Adjusts the horizontal size of the image. (Except for STADIUM mode)

FINE PICTURE*: Adjusts for flickering.

PICTURE ADJ.*: Adjusts for striped patterns on the image.

* The Picture ADJ. and Fine Picture features are available only when the “Auto Picture” is off.

* The AUTO PICTURE, FINE PICTURE and PICTURE ADJ. are available only for RGB signals.

But, these features are not available for moving pictures on VIDEO, HD/DVD or RGB.

Option1 Settings Menu

Setting the on-screen menu

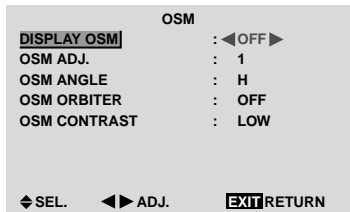
This sets the position of the menu, the display format (horizontal or vertical) etc.

Example: Turning the DISPLAY OSM off

On "OPTION1" menu, select "OSM", then press the MENU/ENTER button.

The "OSM" menu appears.

On "DISPLAY OSM" of "OSM" menu, select "OFF".



Information

■ DISPLAY OSM settings

ON: The on-screen menu appears.

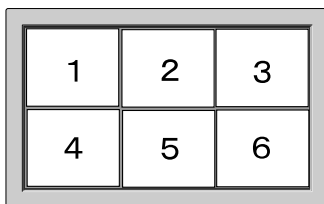
OFF: The on-screen menu does not appear.

If you press the DISPLAY button on the remote control for more than 3 seconds the main menu will appear and can be set (although it is not ON).

■ OSM ADJUST settings

Adjusts the position of the menu when it appears on the screen.

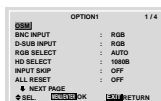
The position can be set between 1 to 6.



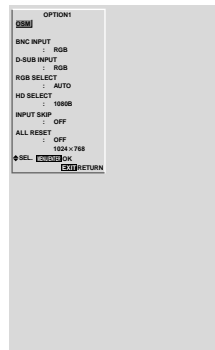
■ OSM ANGLE settings

Sets the display format (landscape "H" or portrait "V"). When the unit is installed vertically set the OSM ANGLE at "V".

"H"



"V"



■ OSM ORBITER settings

ON: The position of the menu will be shifted by eight dots each time OSM is displayed.

OFF: OSM will be displayed at the same position.

■ OSM CONTRAST settings

NORMAL: OSM brightness is set to normal.

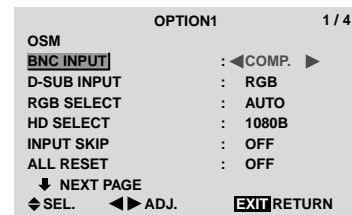
LOW: OSM brightness is set to lower.

Setting the BNC connectors

Select whether to set the input of the 5 BNC connectors to RGB, component or SCART1,2.

Example: Set the BNC INPUT mode to "COMP."

On "BNC INPUT" of "OPTION1" menu, select "COMP".



Information

■ BNC INPUT Settings

RGB: Use the 5BNC terminals for RGB input.

COMP.: Use the 3BNC terminals for component input.

SCART1: Use the 4BNC terminals for RGB with composite sync. See page E-8.

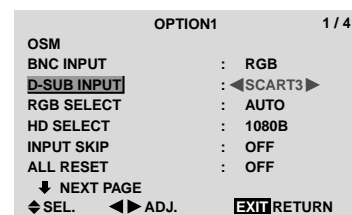
SCART2: Use the 3BNC terminals for RGB and the VIDEO1 terminal for composite sync. See page E-8.

Setting the RGB1 connector

Select one of the signals being transmitted to the RGB1 terminal.

Example: Set the D-SUB INPUT mode to "SCART3"

On "D-SUB INPUT" of "OPTION1" menu, select "SCART3".



Information

■ D-SUB INPUT Settings

RGB: Use the D-SUB terminal for RGB input.

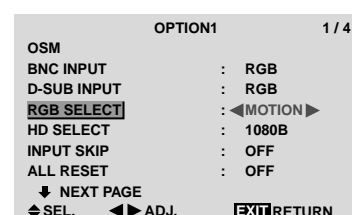
SCART3: Use the D-SUB terminal for RGB signal fed from SCART. See page E-8.

Setting a computer image to the correct RGB select screen

With the computer image, select the RGB Select mode for a moving image such as (video) mode, wide mode or digital broadcast.

Example: Setting the "RGB SELECT" mode to "MOTION"

On "RGB SELECT" of "OPTION1" menu, select "MOTION".



Information

■ RGB SELECT modes

One of these 7 modes must be selected in order to display the following signals correctly.

AUTO: Select the suitable mode for the specifications of input signals as listed in the table “Computer input signals supported by this system” on page E-2 of Model Information.

STILL: To display VESA standard signals. (Use this mode for a still image from a computer.)

MOTION: The video signal (from a scan converter) will be converted to RGB signals to make the picture more easily viewable. (Use this mode for a motion image from a computer.)

WIDE1: When an 852 dot × 480 line signal with a horizontal frequency of 31.7kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE1.

WIDE2: When an 848 dot × 480 line signal with a horizontal frequency of 31.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE2.

WIDE3: When an 1920 dot × 1200 line signal with a horizontal frequency of 74.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE3.

DTV: Set this mode when watching digital broadcasting (480P).

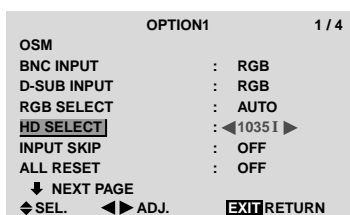
See page E-2 of Model Information for the details of the above settings.

Setting high definition images to the suitable screen size

Use this procedure to set whether the number of vertical lines of the input high definition image is 1035 or 1080.

Example: Setting the “1080B” mode to “1035I”

On “HD SELECT” of “OPTION1” menu, select “1035I”.



Information

■ HD SELECT modes

These 3 modes are not displayed in correct image automatically.

1080B: Standard digital broadcasts

1035I: Japanese “High Vision” signal format

1080A: Special Digital broadcasts (for example : DTC100)

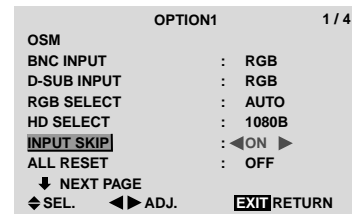
Setting the Input Skip

When this is ON, signals which are not present will be skipped over and only pictures whose signals are being transmitted will be displayed.

This setting is valid only for the INPUT SELECT button on the unit.

Example: Set to “ON”

On “INPUT SKIP” of “OPTION1” menu, select “ON”.



Information

■ INPUT SKIP settings

OFF: Regardless of the presence of the signal, scan and display all signals.

ON: If no input signal is present, skip that signal.

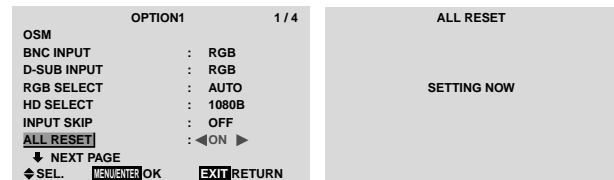
* “SETTING NOW” will appear during the input search.

Resetting to the default values

Use these operations to restore all the settings (PICTURE, AUDIO, IMAGE ADJUST, OPTION1~4, etc) to the factory default values.

Refer to page E-16 for items to be reset.

On “ALL RESET” of “OPTION1” menu, select “ON”, then press the MENU/ENTER button.



When the “SETTING NOW” screen disappears, then all the settings are restored to the default values.

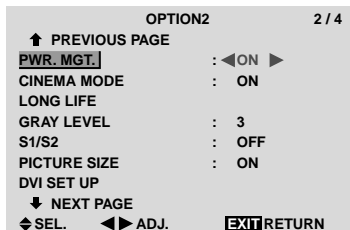
Option2 Settings Menu

Setting the power management for computer images

This energy-saving (power management) function automatically reduces the monitor's power consumption if no operation is performed for a certain amount of time.

Example: Turning the power management function on
Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PWR. MGT." of "OPTION2" menu, select "ON".



Information

■ Power management function

- * The power management function automatically reduces the monitor's power consumption if the computer's keyboard or mouse is not operated for a certain amount of time. This function can be used when using the monitor with a computer.
- * If the computer's power is not turned on or if the computer and selector tuner are not properly connected, the system is set to the off state.
- * For instructions on using the computer's power management function, refer to the computer's operating instructions.

■ Power management settings

ON: In this mode the power management function is turned on.

OFF: In this mode the power management function is turned off.

■ Power management function and POWER/STANDBY indicator

The POWER/STANDBY indicator indicates the status of the power management function. See below for indicator status and description.

POWER/STANDBY indicator

Power management mode	POWER/STANDBY indicator	Power management operating status	Description	Turning the picture back on
On	Green	Not activated.	Horizontal and vertical synchronizing signals are present from the computer.	Picture already on.
Off	Red	Activated.	Horizontal and/or vertical synchronizing signals are not sent from the computer.	Operate the keyboard or mouse. The picture reappears.

Setting the picture to suit the movie

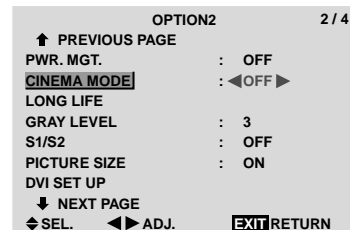
The film image is automatically discriminated and projected in an image mode suited to the picture.

[NTSC, PAL, PAL60, 480I (60Hz), 525I (60Hz), 576I (50Hz), 625I (50Hz), 1035I (60Hz), 1080I (60Hz) only]

Example: Setting the "CINEMA MODE" to "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "CINEMA MODE" of "OPTION2" menu, select "OFF".



Information

■ CINEMA MODE

ON: Automatic discrimination of the image and projection in cinema mode.

OFF: Cinema mode does not function.

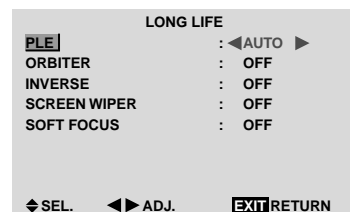
Reducing burn-in of the screen

The brightness of the screen, the position of the picture, positive/negative mode and screen wiper are adjusted to reduce burn-in of the screen.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION2" menu, select "LONG LIFE", then press the MENU/ENTER button.

The "LONG LIFE" screen appears.

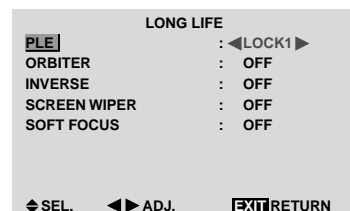


PLE (Peak Luminance Enhancement)

Use this to activate the brightness limiter.

Example: Setting "PLE" to "LOCK1"

On "PLE" of "LONG LIFE" menu, select "LOCK1".



Information

■ PLE settings

AUTO: The brightness of the screen is adjusted automatically to suit the picture quality.

LOCK1, 2, 3: Sets maximum brightness.

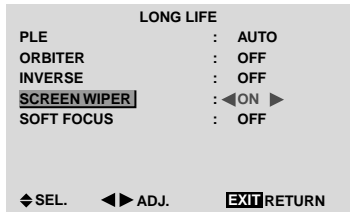
The brightness level decreases in the order of LOCK 1, 2, 3. LOCK 3 provides minimum brightness.

SCREEN WIPER

When this is set to ON, a white vertical bar moves repeatedly from the left and of the screen to the right end at a constant speed.

Example: Setting "SCREEN WIPER" to "ON"

On "SCREEN WIPER" of "LONG LIFE" menu, select "ON".



Information

■ SCREEN WIPER

ON: The white vertical bar appears.

You can set the time by pressing the MENU/ENTER button while "ON" is set.

OFF: Screen wiper mode does not function.

Setting the time for SCREEN WIPER

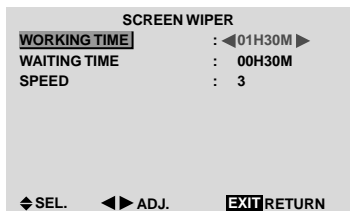
Set a time duration and the speed.

Example: Setting so that the SCREEN WIPER mode starts in 30 minutes and proceeds for one and a half hours.

On "SCREEN WIPER" of "LONG LIFE" menu, select "ON", then press the MENU/ENTER button.

THE "SCREEN WIPER" screen appears.

Adjust the times and speed.



Information

■ Setting the time

WORKING TIME: Set the time duration for "SCREEN WIPER".

When the WORKING TIME is set to "ON" the mode will stay on.

WAITING TIME: Set the standby time until the "SCREEN WIPER" mode starts.

SPEED: Set the moving speed for the "SCREEN WIPER". The speed decreases as the number increases.

* The "WAITING TIME" can not be set when the "WORKING TIME" is ON.

* THE "WORKING TIME" and "WAITING TIME" can be set for up to 12 hours and 45 minutes in units of 3 minutes.

■ To select "ON" for the "WORKING TIME"...

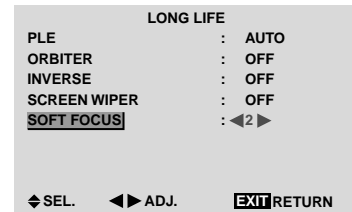
Set the hours of the working time to 0H and the minutes to 0M. "ON" will be displayed.

SOFT FOCUS

Reduces edges and softens the image.

Example: Setting "SOFT FOCUS" to "2"

On "SOFT FOCUS" of "LONG LIFE" menu, select "2".



Information

■ SOFT FOCUS settings

OFF: Turns the SOFT FOCUS function off.

1, 2, 3, 4: Activates the SOFT FOCUS setting. The higher numbers create a softer image.

"SHARPNESS" can not be adjusted in the "PICTURE" menu.

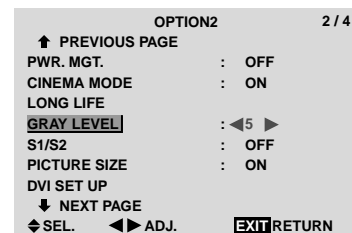
Setting the gray level for the sides of the screen

Use this procedure to set the gray level for the parts on the screen on which nothing is displayed when the screen is set to the 4:3 size.

Example: Setting "GRAY LEVEL" to "5"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "GRAY LEVEL" of "OPTION2" menu, select "5".



Information

■ GRAY LEVEL settings

This adjusts the brightness of the black (the gray level) for the sides of the screen.

The standard is 0 (black). The level can be adjusted from 0 to 15. The factory setting is 3 (dark gray).

Setting the screen size for S1/S2 video input

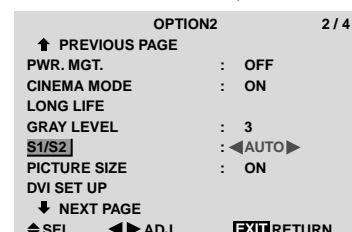
If the S-video signal contains screen size information, the image will be automatically adjusted to fit the screen when this S1/S2 is set to AUTO.

This feature is available only when an S-video signal is input via the VIDEO3 terminal.

Example: Setting the "S1/S2" to "AUTO"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "S1/S2" of "OPTION2" menu, select "AUTO".



Information**■ S1/S2 settings**

AUTO: Adjusts the screen size automatically according to the S1/S2 video signal.

OFF: Turns the S1/S2 function off.

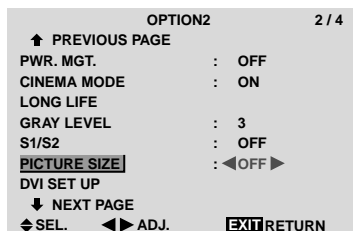
Setting the picture size for RGB input signals

Use this procedure to switch the setting to “ON” or “OFF”.

Example: Setting the “PICTURE SIZE” mode to “OFF”

Set “ADVANCED OSM” to “ON” in the main menu (1/2), then perform the following operations.

On “PICTURE SIZE” of “OPTION2” menu, select “OFF”.

**Setting the signal and black level for DVI signal**

Choose the signal for the DVI connector (PC or STB/DVD) and set the black level.

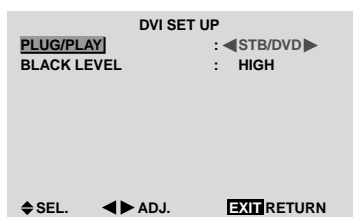
Example: Setting the “PLUG/PLAY” mode to “STB/DVD”

Set “ADVANCED OSM” to “ON” in the main menu (1/2), then perform the following operations.

On “OPTION2” menu, select “DVI SET UP”, then press the MENU/ENTER button.

The “DVI SET UP” screen appears.

On “PLUG/PLAY” of “DVI SET UP” menu, select “STB/DVD”.

**Information****■ PLUG/PLAY settings**

PC: When connected to the PC signal.

BLACK LEVEL is set to “LOW” automatically.

STB/DVD: When connected to the SET TOP BOX, DVD etc.

BLACK LEVEL is set to “HIGH” automatically.

■ BLACK LEVEL settings

LOW: When connected to the PC signal.

HIGH: When connected to the SET TOP BOX, DVD etc. Change “HIGH” into “LOW” if the black level appears gray.

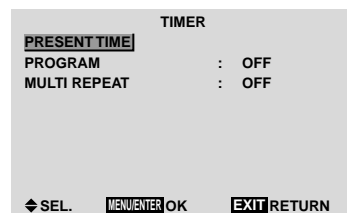
Option3 Settings Menu**Using the timer**

This function sets the monitor to turn ON/OFF automatically at a set time.

Set “ADVANCED OSM” to “ON” in the main menu (1/2), then perform the following operations.

On “OPTION3” menu, select “TIMER”, then press the MENU/ENTER button.

The “TIMER” screen appears.

**PRESENT TIME**

This sets the day of the week and present time.

Example: Setting “WEDNESDAY”, “22:05”

On “TIMER” menu, select “PRESENT TIME”, then press the MENU/ENTER button.

The “PRESENT TIME” screen appears.

Adjust the items.



Select “SET”, then press the MENU/ENTER button.

The adjustments are stored and return to the TIMER menu.

* If you press the EXIT button instead of the MENU/ENTER button, the settings can not be made.

**Information****■ PRESENT TIME settings**

SUMMER TIME: Use to set SUMMER TIME.

ON: The present time + 1 hour.

OFF: Cancelled

Day: Set the day of the week (e.g. Sunday).

Hour: Set the hour in the 24-hour format (range 00 to 23).

Minutes: Set the minutes (range 00 to 59).

PROGRAM TIMER

This sets the day and time at which the power will be switched ON/OFF as well as the input mode.

Example: Setting so that the power will be switched on at 8:30 A.M., Monday, displaying RGB2 source, and switched off at 10:30 A.M.

On "PROGRAM" of "TIMER" menu, select "ON", then press the MENU/ENTER button.

The "PROGRAM TIMER" screen appears.

Adjust the items.

Each mode switches each time the ZOOM +/- button is pressed.

PROGRAM TIMER				
DATE	ON	OFF	INPUT	FUNCTION
MON 08:30	10:30	RGB2	INVERSE	
TUE ---	18:15	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
*FRI 08:30	10:00	HD/DVD1	---	---
---	---	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
* 15:30	16:00	RGB1	---	---
◀▶SEL. ZOOM ADJ. EXIT RETURN				

Information

PROGRAM TIMER settings

DATE: Set the day of the week (e.g. Sunday).

ON (hour, minutes): Set the time at which the power will be turned on in the 24-hour format.

OFF (hour, minutes): Set the time at which the power will be turned off in the 24-hour format.

INPUT: Set the input mode that will be displayed when the timer is on.

FUNCTION: Set the LONG LIFE function.

To reset the program

Align the cursor with the DATE field that you wish to reset, then press the CLEAR/SEAMLESS SW button.

To reset the data

Align the cursor with the field (ON/OFF/INPUT/FUNCTION) that you wish to reset, then press the CLEAR/SEAMLESS SW button.

Special characters in the PROGRAM TIMER screen

PROGRAM TIMER				
DATE	ON	OFF	INPUT	FUNCTION
MON 08:30	10:30	RGB2	INVERSE	
TUE ---	18:15	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
*FRI 08:30	10:00	HD/DVD1	---	---
---	---	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
* 15:30	16:00	RGB1	---	---
◀▶SEL. ZOOM ADJ. EXIT RETURN				

- An asterisk "*" in the DATE field

An asterisk "*" means "every". For example, "*FRI" means every Friday and "*" means everyday.

- A hyphen "-" in the ON field or OFF field

If any hyphen remains in the ON field or OFF field, the FUNCTION can not be set.

- A hyphen "-" in the FUNCTION field

A hyphen "-" means last mode (the mode that was last selected at the time the power was switched off).

To set MULTI INPUT

- Set the INPUT button to "MULTI", then press the MENU/ENTER button.

The "MULTI SCREEN SETTING" will appear on the screen.

- Use the ▲ and ▼ buttons to select "MULTI MODE", then use the ◀ and ▶ buttons to choose from "SINGLE", "SIDE BY SIDE1~3" and "PICTURE IN PICTURE (BOTTOM LEFT~TOP LEFT)".
- Use the ▲ and ▼ buttons to select "MAIN"/"SUB" and "LEFT"/"RIGHT", then use the ◀ and ▶ buttons to choose from "VIDEO1~3", "HD/DVD1~2" and "RGB1~3".

PROGRAM TIMER				
DATE	ON	OFF	INPUT	FUNCTION
MON 08:30	10:30	MULTI	INVERSE	
TUE ---	18:15	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
*FRI 08:30	10:00	HD/DVD1	---	---
---	---	---	---	---
SAT 08:30	12:15	VIDEO1	WHITE	
* 15:30	16:00	RGB1	---	---
◀▶SEL. ZOOM ADJ. EXIT RETURN				

PICTURE IN PICTURE

PROGRAM TIMER	
MULTI SCREEN SETTING	
MULTI MODE	: BOTTOM LEFT
INPUT MODE	
MAIN	: RGB/PC1
SUB	: VIDEO1
◀▶SEL. ADJ. EXIT RETURN	

SIDE BY SIDE

PROGRAM TIMER	
MULTI SCREEN SETTING	
MULTI MODE	: SIDE BY SIDE1
INPUT MODE	
LEFT	: RGB/PC1
RIGHT	: VIDEO1
◀▶SEL. ADJ. EXIT RETURN	

MULTI REPEAT

Two repeat timers are available.

Each timer has MULTI MODE, WORK TIME and INPUT MODE functions.

Example:

TIMER1 is set to display RGB1 (MAIN) and VIDEO1 (SUB) for 4 hours in picture-in-picture mode.

TIMER2 is set to display RGB3 (LEFT) and HD/DVD1 (RIGHT) for 2.5 hours in side-by-side mode.

On "MULTI REPEAT" of "TIMER", select "ON", then press the MENU/ENTER button.

The "MULTI REPEAT TIMER" screen appears.

Adjust the items.

TIMER	
PRESENT TIME	
PROGRAM	: OFF
MULTI REPEAT	: ◀OFF▶
◀▶SEL. ADJ. EXIT RETURN	

MULTI REPEAT TIMER	
1 MULTI MODE	: ◀BTM LFT▶
WORK TIME	: 04H00M
INPUT MODE	
MAIN	: RGB/PC1
SUB	: VIDEO1
2 MULTI MODE	: S BY S1
WORK TIME	: 02H30M
INPUT MODE	
LEFT	: RGB/PC3
RIGHT	: HD/DVD1
◀▶SEL. ADJ. EXIT RETURN	

Information

MULTI REPEAT settings

MULTI MODE: Set the input mode to be displayed while the timer is on.

WORK TIME: Set the time duration of the display.

Time range is from 1 minutes to 4 hours and 15 minutes.

INPUT MODE: Set the signal that will be displayed within the selected screen.

Select "MAIN" or "SUB" for "PICTURE IN PICTURE (BTM LFT~TOP LFT)" and "LEFT" or "RIGHT" for "S BY S1~3". Only one signal is selected for "SINGLE".

* The two repeat timers run consecutively, i.e., Timer1–Timer2–Timer1–Timer2.

* When both PROGRAM TIMER and MULTI REPEAT TIMER are set, priority is given to PROGRAM TIMER.

Setting the power on mode

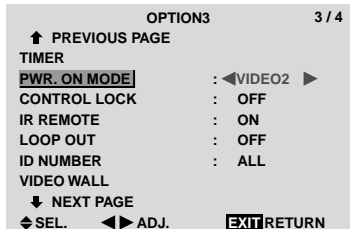
This function sets the input mode at the time the power is switched on.

Example: Setting "VIDEO2"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PWR. ON MODE" of "OPTION3" menu, select "VIDEO2".

The available sources depend on the settings of input.



Information

■ PWR. ON MODE settings

LAST: Last mode (the input that was last selected at the time the power was switched off).

VIDEO1, 2, 3: VIDEO input mode.

RGB1, 2, 3: RGB input mode.

HD/DVD1, 2: HD/DVD input mode.

DVD2, 3: DVD input mode.

MULTI: Multi screen mode.

Follow the procedure used for PROGRAM TIMER. See page E-27.

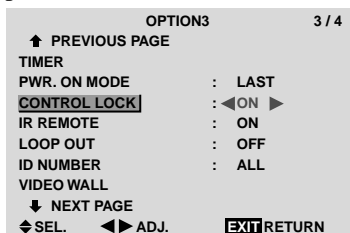
Enabling/disabling the front panel controls

This function enables/disables the front panel controls.

Example: Setting "ON"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "CONTROL LOCK" of "OPTION3" menu, select "ON", then press the MENU/ENTER button.



Information

■ CONTROL LOCK settings

ON: Disables the buttons on the front panel.

OFF: Enables the buttons on the front panel.

* Even when the CONTROL LOCK is set, the POWER switch will not be locked.

* This becomes effective when the on-screen menu goes out.

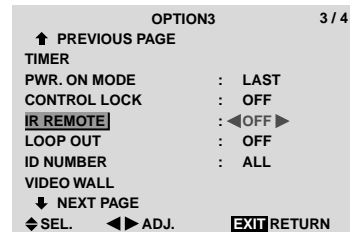
Enabling/disabling remote control wireless transmission

This function enables/disables remote control wireless transmission.

Example: Setting "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "IR REMOTE" of "OPTION3" menu, select "OFF", then press the MENU/ENTER button.



Information

■ IR REMOTE settings

ON: Enables remote control wireless transmission.

OFF: Disables remote control wireless transmission.

Set "OFF" to avoid unwanted control from other remote controls.

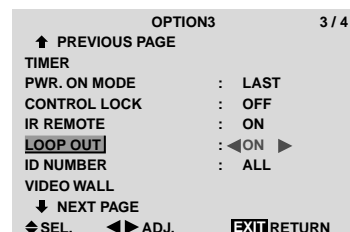
Loop Out setting

When this feature is set to ON, the received signal will be looped out.

Example: Setting "ON"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "LOOP OUT" of "OPTION3" menu, select "ON".



Information

■ LOOP OUT settings

ON: The received signal will be looped out via PC1 terminal or VIDEO1 terminal.

OFF: The received signal will not loop out.

* Even if LOOP OUT is ON, signals won't be sent out if POWER is being turned off.

■ To connect another display...

See page E-5.

■ If the RGB/PC1 signal is present at the time the power switched on...

The RGB/PC1 input will be displayed regardless of the setting of LOOP OUT.

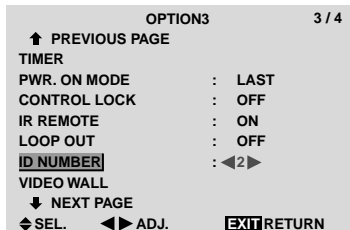
ID number setting

When using more than one of these displays, this function sets ID numbers so that operation of the remote control does not cause multiple monitors to operate at the same time.

Example: Setting "2"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "ID NUMBER" of "OPTION3" menu, select "2".



* To reset back to ALL

Press the CLEAR/SEAMLESS SW button

Information

■ ID NUMBER settings

ALL: ID NUMBER will not be set.

1 to 256: ID NUMBER will be set.

■ When the ID NUMBER have been set

You can also set ID NUMBER for each remote control to operate the plasma display individually. To do so, see the following explanation.

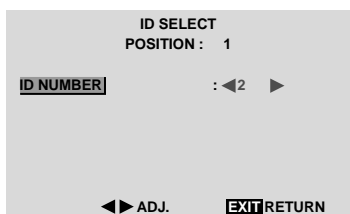
To set the ID number for the remote control

Example: Setting "2"

Press the ID SELECT button on the remote control.

The "ID SELECT" screen appears.

On "ID NUMBER" of "ID SELECT" menu, select "2".



* To reset back to ALL

Press the CLEAR/SEAMLESS SW button

Video Wall setting

Use this feature to configure a 4-25 video wall.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "OPTION3" menu, select "VIDEO WALL", then press the MENU/ENTER button.

The "VIDEO WALL" screen appears.



DIVIDER

Set the 4-25 video wall.

Example: Setting "4"

On "DIVIDER" of "VIDEO WALL" menu, select "4".



Information

■ DIVIDER settings

OFF, 1: 1 Screen (Matrix display function does not work)

4: 4 Screens (2x2 video wall)

9: 9 Screens (3x3 video wall)

16: 16 Screens (4x4 video wall)

25: 25 Screens (5x5 video wall)

* When you select 4-25, set the VIDEO WALL POSITION.

VIDEO WALL POSITION

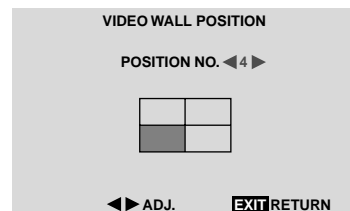
Set the position of each display.

Example: Setting "4"

On "VIDEO WALL" menu, select "POSITION", then press the MENU/ENTER button.

The "VIDEO WALL POSITION" screen appears.

Select "NO. 4" of "POSITION NO.".



Information

■ VIDEO WALL POSITION settings

1 Screen: There is no need to set POSITION.

4 Screens

NO. 1	NO. 2
NO. 4	NO. 3

9 Screens

NO. 7	NO. 8	NO. 9
NO. 10	NO. 11	NO. 12
NO. 13	NO. 14	NO. 15

16 Screens

NO. 16	NO. 17	NO. 18	NO. 19
NO. 20	NO. 21	NO. 22	NO. 23
NO. 24	NO. 25	NO. 26	NO. 27
NO. 28	NO. 29	NO. 30	NO. 31

25 Screens

NO. 32	NO. 33	NO. 34	NO. 35	NO. 36
NO. 37	NO. 38	NO. 39	NO. 40	NO. 41
NO. 42	NO. 43	NO. 44	NO. 45	NO. 46
NO. 47	NO. 48	NO. 49	NO. 50	NO. 51
NO. 52	NO. 53	NO. 54	NO. 55	NO. 56

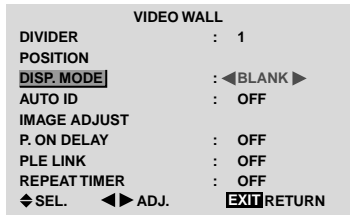
Note: A contingency method of shutting off the electric power should be used in cases of emergency during video wall setup.

DISP. MODE

Select the screen mode from between two options (Splitting, Blanking).

Example: Setting "BLANK"

On "DISP. MODE" of "VIDEO WALL" menu, select "BLANK".



Information

■ DISP. MODE settings

SPLIT: Combines enlarged screens and creates multiple screens.

BLANK: Corrects misalignment of combined screen portions and creates multiple screens

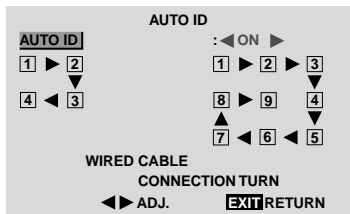
AUTO ID

This feature automatically sets the ID numbers of multiple displays connected to each other.

Example: Setting "ON"

Set the ID number for the No. 1 display on ID NUMBER menu.

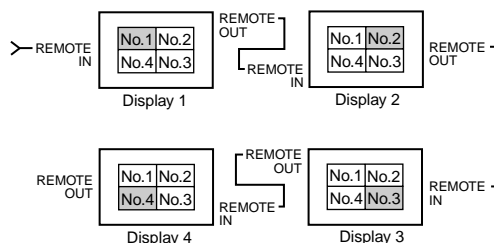
On "AUTO ID" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button.



Information

■ AUTO ID settings

ON: Enables Auto ID function. In the case shown below, display 1 will be set as ID 1, display 2 as ID2, etc. This can be set only when a 2×2 or 3×3 video wall is selected.



OFF: Disables Auto ID function.

IMAGE ADJUST

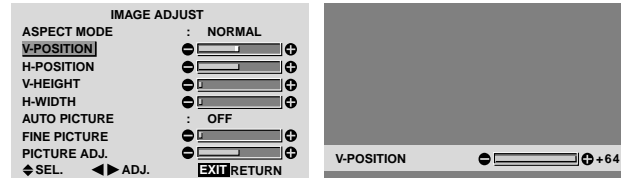
The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position

On "VIDEO WALL" menu, select "IMAGE ADJUST", then press the MENU/ENTER button.

The "IMAGE ADJUST" screen appears.

On "V-POSITION" of "IMAGE ADJUST" menu, adjust the position.



Information

■ IMAGE ADJUST settings

These are the same functions as the IMAGE ADJUST menu on page E-20.

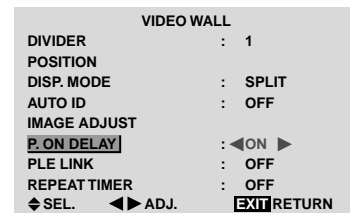
P. ON DELAY (Power on delay)

Use this function to activate power-on delay.

Turn on the AUTO ID before the following operations.

Example: Setting "ON"

On "P. ON DELAY" of "VIDEO WALL" menu, select "ON".



Information

■ P. ON DELAY settings

ON: Turns on the main power of each display after a delay time.

OFF: Turns on the main power of all displays at the same time.

(Only for 16 and 25 screens)

MODE1: Turns on the main power of each display delayed.

MODE2: Turns on the main power of each display more delayed.

* Once this function has been set to "ON", POWER ON/OFF button on the remote control does not function except for the No.1 monitor.

By pressing the POWER ON button on the remote control the No.1 monitor will turn on and the others will be turned on one by one automatically.

* From the second monitor onward, neither the POWER button on the unit nor the POWER ON button on the remote control works. However, by pressing and holding the POWER ON button for more than 3 seconds, the monitor will be turned on.

PLE LINK

Use this function to set a uniform brightness for each display.

Turn on the AUTO ID and set the DIVIDER (at 1, 4 or 9) before the following operations.

Example: Setting "ON"

On "PLE LINK" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button.

VIDEO WALL	
DIVIDER	: 1
POSITION	
DISP. MODE	: SPLIT
AUTO ID	: OFF
IMAGE ADJUST	
P. ON DELAY	: OFF
PLE LINK	: ◀ ON ▶
REPEAT TIMER	: OFF
◀ SEL. ▶ ADJ. ▶ EXIT RETURN	

REPEAT TIMER	
1 DIVIDER	: 1
SOURCE	: VIDEO1
WORK TIME	: 00H03M
2 DIVIDER	: 4
SOURCE	: RGB1
WORK TIME	: ◀ 00H06M ▶
◀ SEL. ▶ ADJ. ▶ EXIT RETURN	

Information

■ REPEAT TIMER settings

DIVIDER: Divide the screen into 1, 4 or 9 sections.

SOURCE: Set the input mode to be displayed.

WORK TIME: Can be set to up to 4 hours 15 minutes in units of 1 minute.

If you set both timers, Timer 1 and Timer 2 run consecutively.

In the case of the Video wall, timer No.1 can be used to control all the displays simultaneously.

* This becomes effective when the on-screen menu goes out.

Information

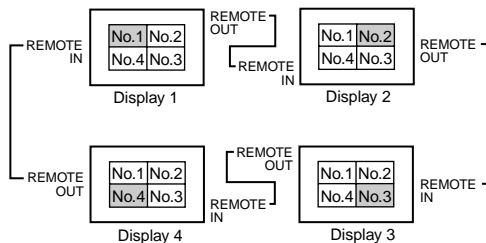
■ PLE LINK settings

ON: Sets a uniform brightness for each screen in a video wall. This can be set only when a 2×2 or 3×3 video wall is selected.

OFF: Sets the individual screen brightness for each screen in a video wall.

* When this function is set "ON", connect your plasma displays with the remote cable (optional) in the order of the position numbers for the 2×2 video wall. See the drawing below.

* If there are changes in the DIVIDER or POSITION, the PLE LINK will automatically turn OFF.



* With the 3×3 video wall, connect the final display to the first display the same way as with 2×2 video wall.

Note: The remote control can be operated unless the IR REMOTE is set to "OFF".

REPEAT TIMER

Use this to set two timers. Each timer can use the DIVIDER, SOURCE and WORK TIME.

Turn on the AUTO ID and set the DIVIDER (at 1, 4 or 9) before the following operations.

Example:

TIMER1...VIDEO1 will be displayed for 3 minutes.

TIMER2...RGB1 will be displayed for 6 minutes in a 2×2 video wall.

On "REPEAT TIMER" of "VIDEO WALL" menu, select "ON", then press the MENU/ENTER button.

The "REPEAT TIMER" screen appears.

Adjust the items.

Option4 Settings Menu

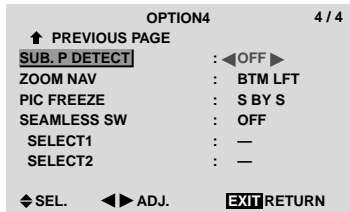
Erasing the sub screen image when there is no input signal

This function automatically erases the black frame of the sub screen when there is no sub screen input signal. This feature is available only when the picture-in-picture mode is selected.

Example: Set to "OFF"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "SUB. P DETECT" of "OPTION4" menu, select "OFF".



Information

SUB. P DETECT Function

- * The sub screen disappears when the input signal is lost.
- * Loss of the input signal means a condition in which the video signal and the sync signal are not present.
- * Under conditions in which the sub screen has disappeared, the ZOOM NAV, PIC FREEZE, and SEAMLESS SW functions will not work. The WIDE button will not function either.

SUB. P DETECT settings

AUTO: The black frame disappears 3 seconds after the input signal is lost.

OFF: Turns off the SUB. P DETECT function.

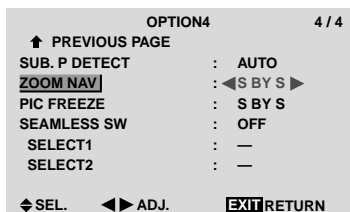
Displaying the entire image during DIGITAL ZOOM operations

Use this function to display the entire image within the sub screen together with an enlarged image on the main screen.

Example: Setting "ZOOM NAV" to "S BY S"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "ZOOM NAV" of "OPTION4" menu, select "S BY S".



Information

ZOOM NAV Function

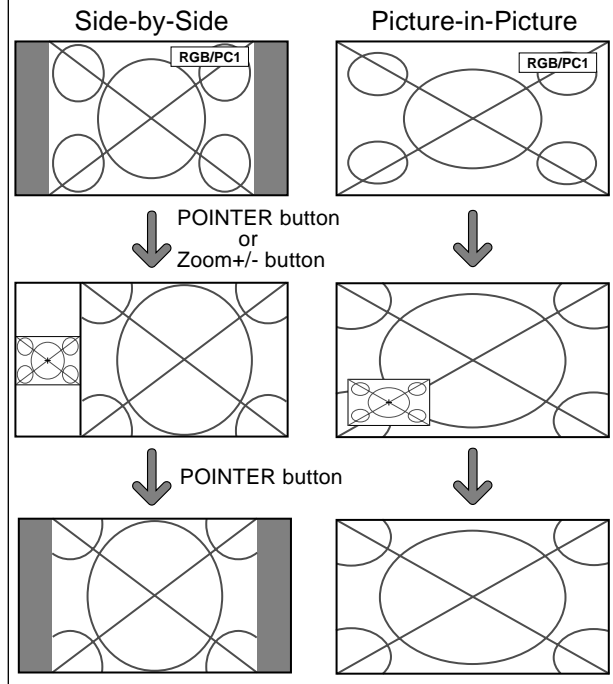
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during split screen mode.
- * This feature does not function while PIC FREEZE is operating.
- * Providing a 2-screen display will cancel this function.

ZOOM NAV settings

OFF: Will not show the entire image on the sub screen.

S BY S: Will show the entire image on the sub screen of side-by-side mode.

BTM LFT~TOP LFT: Will show the entire image on the sub screen of picture-in-picture mode.



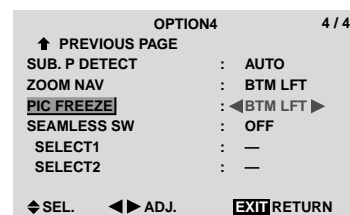
Displaying still images in the sub screen

This feature enables display in the sub screen of still images captured by pressing the SELECT/FREEZE button.

Example: Setting "PIC FREEZE" to "BTM LFT"

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "PIC FREEZE" of "OPTION4" menu, select "BTM LFT".



Information

PIC FREEZE Function

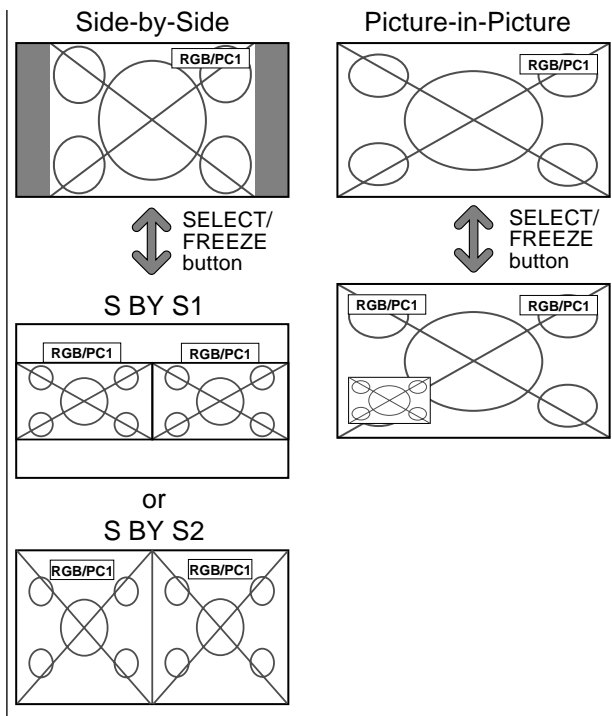
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during split screen mode.
- * Digital zoom is not available while this function is operating.
- * A further press of the SELECT/FREEZE button while this function is operating will cancel this function.
- * Providing a 2-screen display will cancel this function.

PIC FREEZE settings

OFF: Will not show the still image.

S BY S1, 2: The still images captured by pressing the SELECT/FREEZE button will be shown on the sub screen of side-by-side mode.

BTM LFT~TOP LFT: The still images captured by pressing the SELECT/FREEZE button will be shown on the sub screen of picture-in-picture mode.



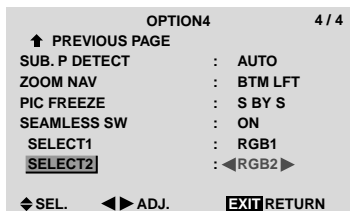
Switching the input source quickly

This feature enables quick input selection. After setting ON, press the **CLEAR/SEAMLESS SW** button for quick switching between the two selected input signals.

Example: Set to switch quickly between RGB1 and RGB2.

Set "ADVANCED OSM" to "ON" in the main menu (1/2), then perform the following operations.

On "SEAMLESS SW" of "OPTION4" menu, select "ON". Select "RGB1" and "RGB2".



* The available sources depend on the settings of input.

Information

SEAMLESS SW Function

- * This feature will not function for certain input combinations. See the table on page E-13.
- * After switching to the selected input, please operate this function.
- * This feature will not function during split screen mode.
- * When SEAMLESS SW is first turned on, or when signals being transmitted are changed, there may be a slight delay due to signal analysis.

SEAMLESS SW settings

OFF: Turns off the SEAMLESS SW function.

ON: When the **CLEAR/SEAMLESS SW** button is pressed, input signals will switch quickly according to the setting of SELECT1 and SELECT2.

Advanced OSM Settings Menu

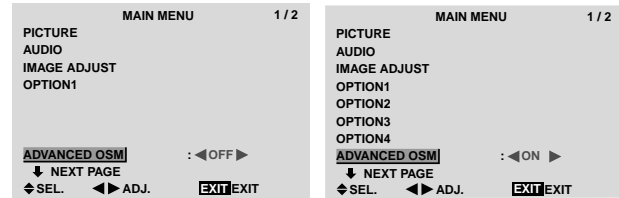
Setting the menu mode

This allows you to access full menu items.

When P. ON DELAY or PLE LINK is ON, this won't be turned OFF.

Example: Setting "ON"

On "ADVANCED OSM" of "MAIN MENU", select "ON".



Information

ADVANCED OSM settings

ON: All of the main menu items are available for advanced users.

OFF: Some of the main menu items are not available (e.g. OPTION2, OPTION3 and OPTION4).

Language Settings Menu

Setting the language for the menus

The menu display can be set to one of eight languages.

Example: Setting the menu display to "DEUTSCH"

On "MAIN MENU", select "LANGUAGE", then press the **MENU/ENTER** button.

The "LANGUAGE" screen appears.

On "LANGUAGE", select "DEUTSCH", then press the **MENU/ENTER** button.



The "LANGUAGE" is set to "DEUTSCH" and return to the main menu.

Information

Language settings

ENGLISH	English	ITALIANO	Italian
DEUTSCH	German	SVENSKA	Swedish
FRANÇAIS	French	中文	Chinese
ESPAÑOL	Spanish	РУССКИЙ	Russian

Color System Settings Menu

Setting the video signal format

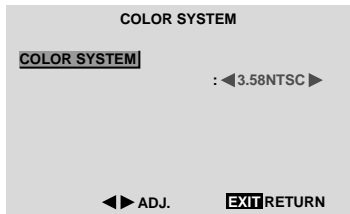
Use these operations to set the color systems of composite video signals or Y/C input signals.

Example: Setting the color system to “3.58 NTSC”

On the MAIN MENU, select “COLOR SYSTEM”, then press the MENU/ENTER button.

The “COLOR SYSTEM” screen appears.

On “COLOR SYSTEM”, select “3.58NTSC”.



Information

■ Video signal formats

Different countries use different formats for video signals. Set to the color system used in your current country.

AUTO: The color systems are automatically identified and the format is set accordingly.

PAL: This is the standard format used mainly in the United Kingdom and Germany.

SECAM: This is the standard format used mainly in France and Russia.

4.43 NTSC, PAL60: This format is used for videos in countries using PAL and SECAM video signals.

3.58 NTSC: This is the standard format used mainly in the United States and Japan.

PAL-M: This is the standard format used mainly in Brazil.

PAL-N: This is the standard format used mainly in Argentina.

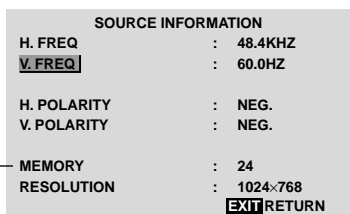
Source Information Menu

Checking the frequencies, polarities of input signals, and resolution

Use this function to check the frequencies and polarities of the signals currently being input from a computer, etc.

On “MAIN MENU”, select “SOURCE INFORMATION”, then press the MENU/ENTER button.

The “SOURCE INFORMATION” is displayed.



PC: MEMORY will be displayed.
Others: MODE will be displayed.

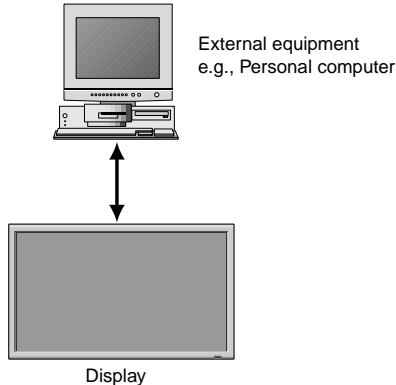
External Control Pin Assignments

Application

These specifications cover the communications control of the plasma monitor by external equipment.

Connections

Connections are made as described below.

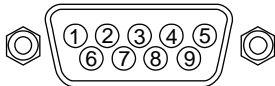


Connector on the plasma monitor side: EXTERNAL CONTROL connector.

Use a crossed (reverse) cable.

Type of connector: D-Sub 9-pin male

Pin No.	Pin Name	Pin No.	Pin Name
1	No Connection	6	DSR (DCE side ready)
2	RXD (Receive data)	7	RTS (Ready to send)
3	TXD (Transmit data)	8	CTS (Clear to send)
4	DTR (DTE side ready)	9	No connection
5	GND		



Communication Parameters

- | | |
|--------------------------|--------------|
| (1) Communication system | Asynchronous |
| (2) Interface | RS-232C |
| (3) Baud rate | 9600 bps |
| (4) Data length | 8 bits |
| (5) Parity | Odd |
| (6) Stop bit | 1 bit |
| (7) Communication code | Hex |

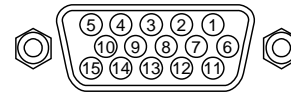
External Control Codes (Reference)

FUNCTION		CODE DATA							
Power ON		9FH	80H	60H	4EH	00H	CDH		
OFF		9FH	80H	60H	4FH	00H	CEH		
Input Switch	Video1 (BNC)	DFH	80H	60H	47H	01H	01H	08H	
	Video2 (RCA)	DFH	80H	60H	47H	01H	02H	09H	
	Video3 (S-Video)	DFH	80H	60H	47H	01H	03H	0AH	
	DVD1/HD1 (RCA)	DFH	80H	60H	47H	01H	05H	0CH	
	DVD2/HD2 (BNC)	DFH	80H	60H	47H	01H	06H	0DH	
	RGB1 (mini D-Sub 15-Pin)	DFH	80H	60H	47H	01H	07H	0EH	
	RGB2 (5BNC)	DFH	80H	60H	47H	01H	08H	0FH	
Audio Mute	ON	9FH	80H	60H	3EH	00H	BDH		
	OFF	9FH	80H	60H	3FH	00H	BEH		
Picture Mode	NORMAL	DFH	80H	60H	0AH	01H	01H	CBH	
	THEAT. 1	DFH	80H	60H	0AH	01H	02H	CCH	
	THEAT. 2	DFH	80H	60H	0AH	01H	03H	CDH	
	DEFAULT	DFH	80H	60H	0AH	01H	04H	CEH	
	BRIGHT	DFH	80H	60H	0AH	01H	05H	CFH	
Screen Mode	STADIUM	DFH	80H	60H	51H	01H	02H	13H	
	ZOOM	DFH	80H	60H	51H	01H	03H	14H	
	NORMAL	DFH	80H	60H	51H	01H	04H	15H	
	FULL	DFH	80H	60H	51H	01H	05H	16H	
	14 : 9	DFH	80H	60H	51H	01H	09H	1AH	
	2.35 : 1	DFH	80H	60H	51H	01H	0AH	1BH	
Auto Picture	ON	DFH	80H	60H	7FH	03H	03H	09H	00H 4DH
	OFF	DFH	80H	60H	7FH	03H	03H	09H	01H 4EH
Cinema Mode	ON	DFH	80H	60H	C1H	01H	01H	82H	
	OFF	DFH	80H	60H	C1H	01H	02H	83H	

Note: Contact your local dealer for a full list of the External Control Codes if needed.

mini D-Sub 15-pin connector (Analog)

RGB 1



Pin No.	Signal (Analog)
1	Red
2	Green or sync-on-green
3	Blue
4	No connection
5	Ground
6	Red ground
7	Green ground
8	Blue ground
9	No connection
10	Sync signal ground
11	No connection
12	Bi-directional DATA (SDA)
13	Horizontal sync or Composite sync
14	Vertical sync
15	Data clock

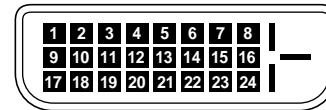
DVI-D 24-pin connector (Digital)

The unit is equipped with a type of connector commonly used for digital.

(This cannot be used for an analog input.)

(TMDS can be used for one link only.)

RGB 3



Pin No.	Signal (Digital)
1	T.M.D.S Data 2 -
2	T.M.D.S Data 2 +
3	T.M.D.S Data 2 Shield
4	No connection
5	No connection
6	DDC Clock
7	DDC Data
8	No connection
9	T.M.D.S Data 1 -
10	T.M.D.S Data 1 +
11	T.M.D.S Data 1 Shield
12	No connection
13	No connection
14	+5V Power
15	Ground
16	Hot Plug Detect
17	T.M.D.S Data 0 -
18	T.M.D.S Data 0 +
19	T.M.D.S Data 0 Shield
20	No connection
21	No connection
22	T.M.D.S Clock Shield
23	T.M.D.S Clock +
24	T.M.D.S Clock -

Troubleshooting

If the picture quality is poor or there is some other problem, check the adjustments, operations, etc., before requesting service.

Symptom	Checks	Remedy
Mechanical sound is heard.	<ul style="list-style-type: none"> • Maybe the sound from the cooling fans used to prevent over heating. 	
The unit emits a crackling sound.	<ul style="list-style-type: none"> • Are the image and sound normal? 	<ul style="list-style-type: none"> • If there are no abnormalities in the image and sound, the noise is caused by the cabinet reacting to changes in temperature. This will not affect performance.
Picture is disturbed. Sound is noisy. Remote control operates erroneously.	<ul style="list-style-type: none"> • Is a connected component set directly in front or at the side of the display? 	<ul style="list-style-type: none"> • Leave some space between the display and the connected components.
The remote control does not work.	<ul style="list-style-type: none"> • Are the remote control's batteries worn out? • Is IR REMOTE set to ON? • Has an ID number been set for the main unit? 	<ul style="list-style-type: none"> • Replace both batteries with new ones. • Set IR REMOTE OFF on OPTION3 menu. • Set an ID number with the ID SELECT button, or set the ID number to ALL.
Monitor's power does not turn on when the remote control's power button is pressed.	<ul style="list-style-type: none"> • Is the monitor's power cord plugged into a power outlet? • Are all the monitor's indicators off? • Are the remote control's batteries worn out? • Is IR REMOTE set to OFF? • Has an ID number been set for the main unit? 	<ul style="list-style-type: none"> • Plug the monitor's power cord into a power outlet. • Press the power button on the monitor to turn on the power. • Replace both batteries with new ones. • Set IR REMOTE ON. • Set an ID number with the ID SELECT button, or set the ID number to ALL.
Monitor does not operate when the remote control's buttons are pressed.	<ul style="list-style-type: none"> • Is the remote control pointed at the monitor, or is there an obstacle between the remote control and the monitor? • Is direct sunlight or strong artificial light shining on the monitor's remote control sensor? • Are the remote control's batteries worn out? • The remote cable is plugged into the REMOTE IN terminal (Wired). 	<ul style="list-style-type: none"> • Point the remote control at the monitor's remote control sensor when pressing buttons, or remove the obstacle. • Eliminate the light by closing curtains, pointing the light in a different direction, etc. • Replace both batteries with new ones. • Unplug the remote cable from the monitor.
The front panel buttons of the main unit do not function.	<ul style="list-style-type: none"> • The front panel buttons do not function during Control Lock. 	<ul style="list-style-type: none"> • Set the Control Lock to OFF.
No sound or picture is produced.	<ul style="list-style-type: none"> • Is the monitor's power cord plugged into a power outlet? 	<ul style="list-style-type: none"> • Plug the monitor's power cord into a power outlet.
Picture appears but no sound is produced.	<ul style="list-style-type: none"> • Is the volume set at the minimum? • Is the mute mode set? • Are the speakers properly connected? • Is AUDIO INPUT set correctly? 	<ul style="list-style-type: none"> • Increase the volume. • Press the remote control's MUTE button. • Connect the speakers properly. • Set AUDIO INPUT on the AUDIO menu correctly.
Poor picture with VIDEO signal input.	<ul style="list-style-type: none"> • Improper control setting. • Local interference. • Cable interconnections. • Input impedance is not correct level. 	<ul style="list-style-type: none"> • Adjust picture control as needed. • Try another location for the monitor. • Be sure all connections are secure.
Poor picture with RGB signal input.	<ul style="list-style-type: none"> • Improper control setting. • Incorrect 15 PIN connector pin connections. 	<ul style="list-style-type: none"> • Adjust picture controls as needed. • Check pin assignments and connections.
Tint is poor or colors are weak.	<ul style="list-style-type: none"> • Are the tint and colors properly adjusted? 	<ul style="list-style-type: none"> • Adjust the tint and color (under PICTURE).
Nothing appears on screen.	<ul style="list-style-type: none"> • Is the computer's power turned on? • Is a source connected? • Is the power management function in the standby or off mode? • Is LOOP OUT set to ON? 	<ul style="list-style-type: none"> • Turn on the computer's power. • Connect source to the monitor. • Operate the computer (move the mouse, etc.). • Set LOOP OUT OFF.
Part of picture is cut off or picture is not centered.	<ul style="list-style-type: none"> • Is the position adjustment appropriate? 	<ul style="list-style-type: none"> • Adjust the IMAGE ADJUST properly.
Image is too large or too small.	<ul style="list-style-type: none"> • Is the screen size adjustment appropriate? 	<ul style="list-style-type: none"> • Press the WIDE button on the remote control and adjust properly.
Picture is unstable.	<ul style="list-style-type: none"> • Is the computer's resolution setting appropriate? 	<ul style="list-style-type: none"> • Set to the proper resolution.
POWER/STANDBY indicator is lighted in red.	<ul style="list-style-type: none"> • Horizontal and / or vertical sync signal is not present when the Intelligent Power Manager control is on. 	<ul style="list-style-type: none"> • Check the input signal.
POWER/STANDBY indicator is blinking in red.	<ul style="list-style-type: none"> • The temperature inside the main unit has become too high and has activated the protector. 	<ul style="list-style-type: none"> • Promptly switch off the power of the main unit and wait until the internal temperature drops. See*1.
POWER/STANDBY indicator is blinking in green and red, or green.		<ul style="list-style-type: none"> • Promptly switch off the power of the main unit. See *2.

*1 Overheat protector

If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location and wait for the monitor to cool for 60 minutes. If the problem persists, contact your dealer.

*2 In the following case, power off the monitor immediately and contact your dealer or authorized Service Center.

The monitor turns off 5 seconds after powering on and then the POWER/STANDBY indicator blinks. It indicates that the power supply circuit, plasma display panel, temperature sensor, or one or more fans have been damaged.

PX-50XR4A

Model Information


For the operation of your plasma monitor,
refer to "Operation Manual".

NEC

NEC Solutions (America), Inc.

IMPORTANT SAFETY INSTRUCTIONS

Read before operating equipment

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and third grounding prong. The wide blade or third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12.  Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel.
Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product may contain lead or mercury. Disposal of these materials may be regulated due to environmental considerations.
For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.
16. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
17. **Tilt/Stability** - All televisions must comply with recommended international global safety standards for tilt and stability properties of its cabinets design.
 - Do not compromise these design standards by applying excessive pull force to the front, or top, of the cabinet which could ultimately overturn the product.
 - Also, do not endanger yourself, or children, by placing electronic equipment/toys on the top of the cabinet. Such items could unsuspectingly fall from the top of the set and cause product damage and/or personal injury.
18. **Wall Mounting** - The appliance should be mounted to a wall only as recommended by the manufacturer.
19. **Power Lines** - An outdoor antenna should be located away from power lines.
20. **Outdoor Antenna Grounding** - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
Section 810 of the National Electric Code, ANSI/NFPA No. 70- 1984, provides information with respect to proper grounding of the mats and supporting structure grounding of the lead-in wire to an antenna-discharge unit, size of grounding connectors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode.
21. **Objects and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.


Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

PRÉCAUTIONS IMPORTANTES DE SÉCURITÉ

A lire avant de faire fonctionner l'appareil

1. Lire ces instructions.
2. Garder ces instructions.
3. Respecter tous les avertissements.
4. Suivre toutes les instructions.
5. Ne pas utiliser cet appareil près de l'eau.
6. Nettoyer seulement avec un chiffon sec.
7. Ne pas boucher les ouvertures d'aération. Installer selon les instructions du fabricant
8. Ne pas installer près d'une source de chaleur telle qu'un radiateur, une bouche de chauffage, une cuisinière ou d'autre matériel (y compris des amplificateurs) qui produit de la chaleur.
9. Ne pas contourner la sécurité fournie par la fiche polarisée ou la fiche de mise à la terre. Une fiche polarisée possède deux lames dont une plus large que l'autre. Une fiche de mise à la terre possède deux lames et une broche de mise à la terre. La lame large ou la broche est fournie pour votre sécurité. Lorsque la fiche fournie ne va pas dans la prise, demander à un électricien de remplacer la prise démodée.
10. Protéger le cordon d'alimentation en ne pas marchant dessous ni le coinçant, en particulier près des fiches, des prises et de l'endroit où le cordon rejoint de l'appareil.
11. N'utiliser que des accessoires préconisés par le fabricant.
12.  Utiliser seulement avec un chariot, meuble, trépied, support ou table spécifié par le fabricant ou vendu avec l'appareil. En utilisant un chariot, au moment de déplacer le chariot/téléviseur, bien faire attention pour éviter des blessures dues au renversement éventuel.
13. Débrancher cet appareil pendant des orages ou lorsqu'il ne sera pas utilisé pendant longtemps.
14. Consulter un technicien agréé de service après vente pour toute réparation. Le service après vente est nécessaire lorsque l'appareil a été endommagé de quelque façon que ce soit, telle que lorsque le cordon d'alimentation ou la fiche est endommagé, du liquide renversé, un objet tombé dans l'appareil, l'exposition de l'appareil à la pluie ou l'humidité, lorsque l'appareil ne fonctionne pas normalement ou lorsqu'on a laissé tomber l'appareil.
15. Ce produit peut contenir un plomb ou du mercure. La mise à rebut de ces matières pourrait être réglementée pour des raisons de protection de l'environnement. Pour s'informer sur la mise à rebut ou le recyclage, veuillez se mettre en contact avec les autorités locales ou l'Electronic Industries Alliance: www.eiae.org.
16. **Dommages qu'il faut faire réparer** - Il faut faire réparer l'appareil par un technicien qualifié lorsque:
 - A. Le cordon d'alimentation en électricité ou la fiche a été endommagé; ou
 - B. On a laissé tomber des objets ou du liquide dans l'appareil;
 - C. On a exposé l'appareil à la pluie; ou
 - D. L'appareil ne paraît pas marcher normalement ou présente de grands changements d'opération; ou
 - E. On a laissé tomber l'appareil ou endommager le coffret.
17. Tous les téléviseurs doivent être conformes aux normes inter-nationales de sécurité préconisées pour les propriétés de stabilité et d'inclinaison dans la conception des meubles.
 - Ne pas compromettre ces normes de conception en tirant excessivement sur le devant ou le haut du meuble, ce qui risque éventuellement de renverser le produit.
 - De plus, ne pas se mettre en danger, ni mettre les enfants en danger en plaçant du matériel électronique ou des jouets sur le meuble. De tels articles pourraient tomber malencontreusement du haut du téléviseur et endommager le produit et/ou blesser des gens.
18. **Montage au mur ou au plafond** - Il faut monter l'appareil à un mur ou plafond uniquement en suivant les recommandations du fabricant.
19. **Lignes de transmission** - Il faut situer une antenne extérieure à l'écart des lignes de transmission d'électricité.
20. **Mise à terre de l'antenne extérieure** - Si une antenne extérieure est reliée au récepteur, assurez-vous que le système d'antenne est bien mis à la terre pour protéger contre les sauts de tension et l'accumulation des charges d'électricité statique.
La section 810 du National Electric Code, ANSI/NFPA No. 70-1984, fournit des renseignements sur la mise à la terre du mât et de sa structure de soutien, du fil d'entrée à un appareil de décharge/antenne, sur la grosseur des conducteurs de mise à terre, sur l'emplacement d'un appareil de décharge/antenne, sur la mise à la terre vers les électrodes de terre, ainsi que sur les recommandations sur les électrodes de terre.
21. **Entrée des objets et des liquides** - Évitez de laisser tomber des objets ou des liquides par les ouverture de l'enclos.

Ne pas exposer l'appareil aux projections ou aux écoulement d'eau et ne jamais poser un récipient contenant du liquide, un vase par exemple, sur l'appareil.

AVERTISSEMENT

Pour réduire les risques d'incendie ou d'électrocution, ne jamais exposer cet appareil à la pluie ou à l'humidité.

Important Information

Warning

Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/ Data Processing Equipment ANSI/NFPA 75.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

NOTE:

When you connect a computer to this monitor, use an RGB cable including the ferrite core on both ends of the cable. And regarding DVI and power cable, attach the supplied ferrite cores. If you do not do this, this monitor will not conform to mandatory FCC standards.

Attaching the ferrite cores:

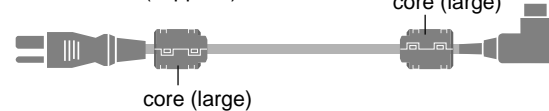
Set the ferrite cores on both ends of the DVI cable (not supplied), and both ends of the power cable (supplied). Close the lid tightly until the clamps click.

Use the band to fasten the ferrite core (supplied) to the DVI cable.

DVI cable (not supplied)



Power cable (supplied)



Caution

This model is for use with the following optional accessories. Use with other optional accessories is capable of resulting in instability causing possible injury.

Manufacturer's name: NEC Plasma Display Corporation

Speakers: PX-50SP1U, PX-50SP1U/S

Stand: PX-ST1U, PX-ST1U/S, PX-50XM1U-ST

Please contact NEC Solutions (America), Inc. for approved optional accessories.

Recommandations importantes

Avertissement

Ne pas utiliser dans une salle d'ordinateurs telle que définie dans la Norme pour la protection des ordinateurs électroniques/appareils de traitement des données ANSI/NFPA75.

DOC avis de conformation

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le Matériel Brouilleur du Canada.

Attention

Cet modèle est fait pour être utilisé avec les accessoires optionnels suivants. Toute utilisation avec d'autres accessoires optionnels peut entraîner une instabilité pouvant causer des blessures.

Nom du fabricant: NEC Plasma Display Corporation

Enceintes: PX-50SP1U, PX-50SP1U/S

Support: PX-ST1U, PX-ST1U/S, PX-50XM1U-ST

Veuillez contacter NEC Solutions (America), Inc. pour connaître les accessoires optionnels approuvés par NEC.

REMARQUE:

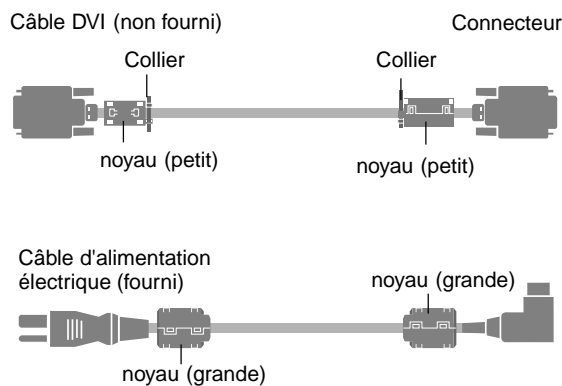
Pour raccorder un ordinateur à ce moniteur, procéder à l'aide d'un câble RGB à âme de ferrite aux deux extrémités. Sur les câbles DVI et les câbles d'alimentation électrique, fixer les âmes de ferrite fournies aux extrémités. Si vous ne le faites, le moniteur ne sera pas en conformité avec les exigences des standards FCC.

Fixation des noyaux en ferrite.

Monter les tores en ferrite aux deux extrémités du câble DVI (non fourni) et aux deux extrémités du câble d'alimentation électrique (fourni).

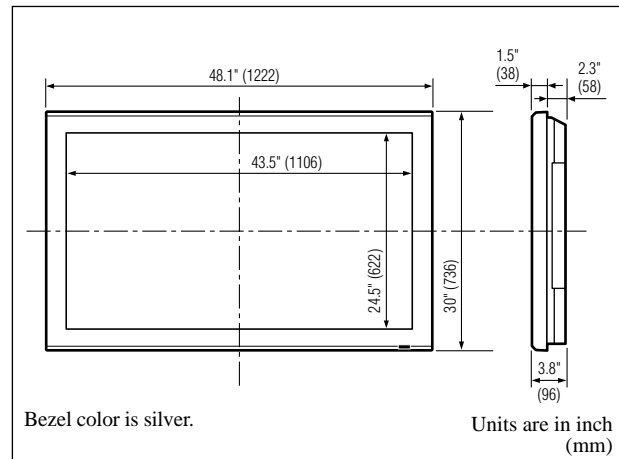
Fermez doucement le couvercle jusqu'à ce que les crans se clipsent.

Fixer le tore en ferrite (fourni) au câble DVI à l'aide d'un collier.



Specifications

Screen Size	43.5"(H) × 24.5"(V) inches 1106(H) × 622(V) mm diagonal 50"
Aspect Ratio	16 : 9
Resolution	1365(H) × 768(V) pixels
Pixel Pitch	0.032"(H) × 0.032"(V) inches 0.81(H) × 0.81(V) mm
Color Processing	4,096 steps, 68.7 billion colors
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD* ¹ , DVD* ¹ , DTV* ¹
Input Terminals	
RGB	
Visual 1 (Analog)	mini D-sub 15-pin × 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) × 1* ²
Visual 3 (Digital)	DVI-D 24-pin × 1* ³
Video	
Visual 1	BNC × 1
Visual 2	RCA-pin × 1
Visual 3	S-Video: DIN 4-pin × 1
DVD/HD/DTV	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) × 1* ¹
Visual 2	BNC (Y, PB[CB], PR[CR]) × 1* ^{1, *2}
Visual 3	DVI-D 24-pin × 1* ³
Audio	Stereo RCA × 3 (Selectable)
External Control	D-sub 9-pin × 1 (RS-232C)
Sound output	9W+9W at 6 ohm
Power Supply	AC100-240V 50/60Hz
Current Rating	7.6A (maximum)
Power Consumption	435W (typical)
Dimensions	48.1 (W) × 30 (H) × 3.8 (D) inches 1222 (W) × 736 (H) × 96 (D) mm
Weight	98.1 lbs / 44.5 kg (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Humidity	20 to 80% (no condensation)
Altitude	0 to 9180 feet / 0 to 2800 m
Storage Temperature	-10°C to 50°C / 14°F to 122°F
Humidity	10 to 90% (no condensation)
Altitude	0 to 9840 feet / 0 to 3000 m
Front Panel User Controls	Power on/off, Input source select, Volume up/down/ OSM control
Remote Control Functions	Power on/off, Input source select, OSM control, Volume up/down, Cursor (UP, DOWN, LEFT, RIGHT), Zoom up/down, Split screen buttons
OSM Functions	PICTURE (PICTURE MEMORY/CONTRAST/ BRIGHTNESS/SHARPNESS/COLOR/TINT/NR/ COLOR TEMP/WHITE BALANCE/GAMMA/ LOW TONE/SET UP LEVEL/COLOR TUNE/ CINEMA MODE/PICTURE MODE), AUDIO (BASS/TREBLE/BALANCE/AUDIO INPUT1/ AUDIO INPUT2/AUDIO INPUT3), IMAGE ADJUST (ASPECT MODE/V-POSITION/H- POSITION/V-HEIGHT/H-WIDTH/AUTO PICTURE/FINE PICTURE/PICTURE ADJ.), SET UP (LANGUAGE*/BNC INPUT/D-SUB INPUT/HD SELECT/RGB SELECT/DVI SET UP/ COLOR SYSTEM/BACK GROUND/GRAY LEVEL/S1/S2/DISPLAY OSM/OSM ADJ./ALL RESET), FUNCTION (POWER MGT./INPUT SKIP/SUB. P DETECT/ZOOM NAV/PICTURE FREEZE/PDP SAVER [PEAK BRIGHT / ORBITER / INVERSE/WHITE / SCREEN WIPER / SOFT FOCUS / OSM ORBITER / OSM CONTRAST]/CLOSED CAPTION/CAPTION CONT), SIGNAL INFO.



The features and specifications may be subject to change without notice.

*¹HD/DVD/DTV input signals supported on this system

480P (60 Hz)	480I (60 Hz)	525P (60 Hz)
525I (60 Hz)	576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)	720P (60 Hz)
1035I (60 Hz)	1080I (50 Hz)	1080I (60 Hz)

*²The 5-BNC connectors are used as RGB/PC2 and HD/DVD2 input. Select one of them under "BNC INPUT".

*³Compatible with HDCP.

Supported Signals

- 640 × 480P @ 59.94/60Hz
- 1280 × 720P @ 59.94/60Hz
- 1920 × 1080I @ 59.94/60Hz
- 720 × 480P @ 59.94/60Hz
- 1440 (720) × 480I @ 59.94/60Hz
- 1920 × 1080I @ 50Hz
- 720 × 576P @ 50Hz
- 1440 (720) × 576P @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact NEC Solutions (America), Inc. and also the manufacturer of the source equipment.

*English, German, French, Italian, Spanish, Swedish, Chinese, Russian

Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Self Diagnosis, Image Burn reduction tools (PEAK BRIGHT, INVERSE, WHITE, ORBITER, SCREEN WIPER), Color Temperature select (high/middle/ middle low/low, user has 4 memories), Auto Picture, Input Skip, Color Tune, Low Tone (3 mode), Gamma Correction (4 mode), Plug and play (DDC1, DDC2b, RGB3: DDC2b only), Split screen operations
Accessories	Remote control with two AAA batteries, Power cord, Manuals, Safety metal fittings, Ferrite cores, Bands, Cable clamps, HDMI-DVI cable
Regulations	UL Approved (UL 60950-1 and UL65000, CAN/CSA C22.2 No.60950-1 and CAN/CSA-E60065-00) DOC Canada requirements Meets FCC Class B requirements

Table of Signals Supported

Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 1024 dots × 768 lines signal. (Except for *2,3,4)
- When the screen mode is TRUE, the picture is displayed in the original resolution.
- When the screen mode is FULL, each signal is converted to a 1365 dots × 768 lines signal. (Except for *3)

Computer input signals supported by this system

Model	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode			RGB select*5	DVI	Memory	
				Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	TRUE	FULL (16:9)				
Signal Type														
	640 × 400	70.1	31.5	NEG	NEG	YES	YES	YES*2	YES	YES	--	NO	4	
IBM PC/AT*8 compatible computers	640 × 480	59.9	31.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	5	
		72.8	37.9	NEG	NEG	YES	YES	YES	YES	YES	--	YES	7	
		75.0	37.5	NEG	NEG	YES	YES	YES	YES	YES	STILL	YES	8	
		85.0	43.3	NEG	NEG	YES	YES	YES	YES	YES	--	YES	9	
		100.4	51.1	NEG	NEG	YES	YES	YES	YES	YES	--	YES	41	
		120.4	61.3	NEG	NEG	YES	YES	YES	YES	YES	--	YES	42	
		848 × 480	60.0	31.0	POS	POS	YES	YES	--	YES	YES	WIDE2	YES	19
	852 × 480*1	60.0	31.7	NEG	NEG	YES	YES	--	YES	YES	WIDE1	YES	17	
	800 × 600	56.3	35.2	POS	POS	YES	YES	YES	YES	YES	YES	STILL	YES	11
		60.3	37.9	POS	POS	YES	YES	YES	YES	YES	YES	STILL	YES	12
		72.2	48.1	POS	POS	YES	YES	YES	YES	YES	--	YES	13	
		75.0	46.9	POS	POS	YES	YES	YES	YES	YES	--	YES	14	
		85.1	53.7	POS	POS	YES	YES	YES	YES	YES	--	YES	15	
		99.8	63.0	POS	POS	YES	YES	YES	YES	YES	--	YES	43	
		120.0	75.7	POS	POS	YES	YES	YES	YES	YES	--	YES	44	
		1024 × 768	60.0	48.4	NEG	NEG	YES	YES	YES*3	--	YES	STILL	YES	24
	70.1	56.5	NEG	NEG	YES	YES	YES*3	--	YES	--	YES	25		
	75.0	60.0	POS	POS	YES	YES	YES*3	--	YES	STILL	YES	26		
	85.0	68.7	POS	POS	YES	YES	YES*3	--	YES	--	YES	27		
	100.6	80.5	NEG	NEG	YES	YES	YES*3	--	YES	--	YES	45		
	1152 × 864	75.0	67.5	POS	POS	YES	YES	YES	--	YES	STILL	YES	51	
	1280 × 768	56.2	45.1	POS	POS	YES	YES	--	--	YES	WIDE1	NO	52	
		59.8	48.0	POS	NEG	YES	YES	--	--	YES	WIDE3	YES	80	
	1280 × 768*9	69.8	56.0	NEG	POS	YES	YES	--	--	YES	WIDE1	YES	66	
	1280 × 800*9	60.0	49.7	NEG	NEG	YES	YES	--	--	YES	WIDE1	YES	21	
	1280 × 854*9	60.0	53.1	NEG	NEG	YES	YES	--	--	YES	WIDE2	YES	37	
	1360 × 765	60.0	47.7	POS	POS	YES	YES	--	--	YES*3	WIDE1	NO	22	
	1360 × 768	60.0	47.7	POS	POS	YES	YES	--	--	YES*3	WIDE1	YES	22	
	1376 × 768	59.9	48.3	NEG	POS	YES	YES	--	--	YES	WIDE2	YES	53	
	1280 × 1024	60.0	64.0	POS	POS	YES	YES	YES	YES	YES	STILL	YES	29	
		75.0	80.0	POS	POS	YES	YES	YES	YES	--	YES	--	YES	30
		85.0	91.1	POS	POS	YES	YES	YES	YES	--	YES	--	YES	40
		100.1	108.5	POS	POS	YES	YES	YES	YES	--	YES	--	NO	47
	1680 × 1050*9	60.0	65.3	NEG	NEG	YES	YES	--	--	YES	WIDE4	YES	38	
	1600 × 1200	60.0	75.0	POS	POS	YES	YES	YES	YES	--	YES	--	YES	54
		65.0	81.3	POS	POS	YES	YES	YES	YES	--	YES	--	NO	55
		70.0	87.5	POS	POS	YES	YES	YES	YES	--	YES	--	NO	56
		75.0	93.8	POS	POS	YES	YES	YES	YES	--	YES	--	NO	57
		85.0	106.3	POS	POS	YES	YES	YES	YES	--	YES	--	NO	58
	1920 × 1200*9	60.0	74.6	NEG	NEG	YES	YES	--	--	YES	WIDE2	--	81	
	1920 × 1200RB*9	60.0	74.0	NEG	NEG	YES	YES	--	--	YES	WIDE3	YES	88	
	Apple Macintosh*6 *8	640 × 480	66.7	35.0	Sync on G	Sync on G	--	--	YES	YES	YES	--	NO	6
		832 × 624	74.6	49.7	Sync on G	Sync on G	--	--	YES	YES	YES	--	NO	16
1024 × 768		74.9	60.2	Sync on G	Sync on G	--	--	YES*3	--	YES	WIDE1	NO	28	
1152 × 870		75.1	68.7	Sync on G	Sync on G	--	--	YES	--	YES	WIDE1	NO	39	
1440 × 900*9		60.0	56.0	NEG	NEG	YES	YES	--	--	YES	--	YES	89	
Work Station (EWS4800)*8	1280 × 1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	--	YES	--	YES	29	
		71.2	75.1	NEG	NEG	YES	YES	YES*4	--	YES	--	YES	48	
Work Station (HP)*8	1280 × 1024	72.0	78.1	--	--	--	--	YES*4	--	YES	--	YES	59	
Work Station (SUN)*8	1152 × 900	66.0	61.8	C Sync	C Sync	--	--	YES	--	YES	--	YES	60	
		76.0	71.7	C Sync	C Sync	--	--	YES	--	YES	--	YES	61	
	1280 × 1024	76.1	81.1	C Sync	C Sync	--	--	YES*4	--	YES	--	YES	30	
Work Station (SGI)	1024 × 768	60.0	49.7	--	--	--	--	YES*3	--	YES	--	YES	62	
	1280 × 1024	60.0	63.9	--	--	--	--	YES*4	--	YES	--	YES	29	
IDC-3000G														
PAL625P	768 × 576	50.0	31.4	NEG	NEG	YES	YES	YES*7	--	YES*7	--	NO	31	
	NTSC525P	640 × 480	59.9	31.5	NEG	NEG	YES	YES	YES*7	--	YES*7	MOTION	NO	32

- *1 Only when using a graphic accelerator board that is capable of displaying 852 × 480.
- *2 This signal is converted to a 1024 dots × 640 lines signal.
- *3 The picture is displayed in the original resolution.
- *4 The aspect ratio is 5:4. This signal is converted to a 960 dots × 768 lines signal.
- *5 Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
- *6 To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin) to your computer's video port.
- *7 Other screen modes (ZOOM and STADIUM) are available as well.
- *8 When viewing a moving picture at a vertical frequency greater than 65Hz, the picture may sometimes be unstable (jumpy). If this occurs, please set the refresh rate of the external equipment to 60Hz.
To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (567 interlaced lines, 50Hz refresh rate) when sync polarity is "Sync on Green", set "RGB SELECT" to "MOTION".
- *9 CVT standard compliant.

NOTE:

- While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.
 - When a 1280 dots × 1024 lines signal or 1600 dots × 1200 lines signal is input to the monitor, the picture will be compressed.
 - This monitor has a resolution of 1365 dots × 768 lines. It is recommended that the input signal should be XGA, wide XGA, or equivalent.
 - With digital input some signals are not accepted.
 - The sync may be disturbed when a nonstandard signal other than the aforementioned is input.
 - If you are connecting a composite sync signal, use the HD terminal.
-

What is HDCP/HDCP technology?

HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).

If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

-
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 - "Apple Macintosh" is a registered trademark of Apple Computer, Inc. of the United States.
-

DECLARATION OF CONFORMITY

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions. (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

U.S. Responsible Party:	NEC SOLUTIONS (AMERICA), INC.
Address:	1250 N. Arlington Heights Road, Suite 400
	Itasca, Illinois 60143-1248
Tel. No.:	800-836-0655

Type of Product:	Plasma Display
Equipment Classification:	Class B Peripheral
Models:	PX-50XR4A



*We hereby declare that the equipment specified above
conforms to the technical standards as specified in the FCC Rules.*

NEC

NEC Solutions (America), Inc.
1250 N. Arlington Heights Road, Suite 400
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Operation Manual

(Enhanced split screen Model)

For the specifications of your plasma monitor,
refer to "Model Information".

NEC


NEC Solutions (America), Inc.

Important Information

Precautions


Please read this manual carefully before using your plasma monitor and keep the manual handy for future reference.

CAUTION



RISK OF ELECTRIC SHOCK

DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS, UNLESS THE PRONGS CAN BE FULLY INSERTED. REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warnings and Safety Precaution

This plasma monitor is designed and manufactured to provide long, trouble-free service. No maintenance other than cleaning is required. Please see the section "Plasma monitor cleaning procedure" on the next page.

The plasma display panel consists of fine picture elements (cells) with more than 99.99 percent active cells. There may be some cells that do not produce light or remain lit.

For operating safety and to avoid damage to the unit, read carefully and observe the following instructions. To avoid shock and fire hazards:

1. Provide adequate space for ventilation to avoid internal heat build-up. Do not cover rear vents or install the unit in a closed cabinet or shelves.
If you install the unit in an enclosure, make sure there is adequate space at the top of the unit to allow hot air to rise and escape. If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location, and wait for 60 minutes to cool the monitor. If the problem persists, contact your dealer for service.

2. Do not use this unit's polarized plug with extension cords or outlets unless the prongs can be completely inserted.
3. Do not expose the unit to water or moisture.
4. Avoid damage to the power cord, and do not attempt to modify the power cord.
5. Unplug the power cord during electrical storms or if the unit will not be used over a long period.
6. Do not open the cabinet which has potentially dangerous high voltage components inside. If the unit is damaged in this way the warranty will be void. Moreover, there is a serious risk of electric shock.
7. Do not attempt to service or repair the unit. The manufacturer is not liable for any bodily harm or damage caused if unqualified persons attempt service or open the back cover. Refer all service to authorized Service Centers.

To avoid damage and prolong operating life:

1. Use only with 100-240V 50/60Hz AC power supply. Continued operation at line voltages greater than 100-240 Volts AC will shorten the life of the unit, and might even cause a fire hazard.
2. Handle the unit carefully when installing it and do not drop.
3. Set the unit away from heat, excessive dust, and direct sunlight.
4. Protect the inside of the unit from liquids and small metal objects. In case of accident, unplug the power cord and have it serviced by an authorized Service Center.
5. Do not hit or scratch the panel surface as this causes flaws on the surface of the screen.
6. For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.
7. As is the case with any phosphor-based display (like a CRT monitor, for example) light output will gradually decrease over the life of a Plasma Display Panel.
8. To avoid sulfurization it is strongly recommended not to place the unit in a dressing room in a public bath or hot spring bath.
9. Do not use in a moving vehicle, as the unit could drop or topple over and cause injuries.
10. Do not place the unit on its side, upside-down or with the screen facing up or down, to avoid combustion or electric shock.

Plasma monitor cleaning procedure:

1. Use a soft dry cloth to clean the front panel and bezel area. Never use solvents such as alcohol or thinner to clean these surfaces.
2. Clean plasma ventilation areas with a vacuum cleaner with a soft brush nozzle attachment.
3. To ensure proper ventilation, cleaning of the ventilation areas must be carried out monthly. More frequent cleaning may be necessary depending on the environment in which the plasma monitor is installed.

Recommendations to avoid or minimize phosphor burn-in:
Like all phosphor-based display devices and all other gas plasma displays, plasma monitors can be susceptible to phosphor burn under certain circumstances. Certain operating conditions, such as the continuous display of a static image over a prolonged period of time, can result in phosphor burn if proper precautions are not taken. To protect

your investment in this plasma monitor, please adhere to the following guidelines and recommendations for minimizing the occurrence of image burn:

- * Always enable and use your computer's screen saver function during use with a computer input source.
- * Display a moving image whenever possible.
- * Change the position of the menu display from time to time.
- * Always power down the monitor when you are finished using it.

If the plasma monitor is in long term use or continuous operation take the following measures to reduce the likelihood of phosphor burn:

- * Lower the Brightness and Contrast levels as much as possible without impairing image readability.
- * Display an image with many colors and color gradations (i.e. photographic or photo-realistic images).
- * Create image content with minimal contrast between light and dark areas, for example white characters on black backgrounds. Use complementary or pastel color whenever possible.
- * Avoid displaying images with few colors and distinct, sharply defined borders between colors.

* **Note:** Burn-in is not covered by the warranty.

Contact your dealer for other recommended procedures that will best suit your particular application needs.

Recommandations importantes

Précautions

Veuillez lire avec attention ce manuel avant d'utiliser le moniteur à plasma et le conserver accessible pour s'y référer ultérieurement.



ATTENTION

RISQUE D'ELECTROCUTION
NE PAS OUVRIR



MISE EN GARDE: AFIN DE REDUIRE LES RISQUES D'ELECTROCUTION, NE PAS DEPOSER LE COUVERCLE, IL N'Y A AUCUNE PIECE UTILISABLE A L'INTERIEUR DE CET APPAREIL. NE CONFIER LES TRAVAUX D'ENTRETIEN QU'A UN PERSONNEL QUALIFIE.



Ce symbole a pour but de prévenir l'utilisateur de la présence d'une tension dangereuse, non isolée se trouvant à l'intérieur de l'appareil. Elle est d'une intensité suffisante pour constituer un risque d'électrocution. Eviter le contact avec les pièces à l'intérieur de cet appareil.



Ce symbole a pour but de prévenir l'utilisateur de la présence d'importantes instructions concernant l'entretien et le fonctionnement de cet appareil. Par conséquent, elles doivent être lues attentivement afin d'éviter des problèmes.

AVERTISSEMENT

AFIN DE REDUIRE LES RISQUES D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE. AUSSI, NE PAS UTILISER LA FICHE POLARISEE AVEC UN PROLONGATEUR OU UNE AUTRE PRISE DE COURANT SAUF SI CES LAMES PEUVENT ETRE INSEREES A FOND. NE PAS OUVRIR LE COFFRET, DES COMPOSANTS HAUTE TENSION SE TROUVENT A L'INTERIEUR. LAISSER A UN PERSONNEL QUALIFIE LE SOIN DE REPARER CET APPAREIL.

Mises en garde et précautions de sécurité

Ce moniteur à plasma a été conçu et fabriqué pour une utilisation fiable et durable. Il ne nécessite aucun entretien en dehors du nettoyage. Voir la section "Méthode de nettoyage du moniteur à plasma" plus loin. Le panneau à affichage plasma est constitué de fines particules d'images (cellules) dont plus de 99,99% sont actives. Certaines d'entre elles ne produisent pas de lumière ou restent allumées.

Pour des raisons de sécurité et pour éviter d'endommager l'appareil, lire attentivement les instructions suivantes.

Pour éviter les risques d'électrocution et d'incendie:

1. Laisser suffisamment d'espace autour de l'appareil pour la ventilation et éviter toute augmentation excessive de la température interne. Ne pas couvrir les événements ou l'installer dans un endroit trop exigü.
- Si vous installez l'appareil dans un espace clos, assurez-vous qu'il y ait suffisamment d'espace au dessus pour permettre à l'air chaud de s'élever et de s'évacuer. Si la température du moniteur devient excessive, la protection contre les surchauffes entrera en action et coupera l'alimentation. Dans ce cas, éteindre l'appareil et débrancher le câble d'alimentation. Si la température de la pièce dans laquelle se trouve le moniteur est particulièrement élevée, déplacer celui-ci dans un endroit plus frais et attendre environ 60 minutes qu'il refroidisse. Si le problème persiste, prendre contact avec votre revendeur.
2. Ne pas raccorder la prise d'alimentation polarisée de ce périphérique à une rallonge ou une prise murale si les fiches ne peuvent pas être complètement insérées.
3. Ne pas exposer à l'eau ou à l'humidité.
4. Eviter d'endommager le cordon d'alimentation, et ne pas modifier le cordon d'alimentation.
5. Débrancher le câble d'alimentation électrique pendant les orages ou les longues périodes d'inactivité.
6. Ne pas ouvrir le coffret. Des composants de haute tension se trouvent à l'intérieur. Si l'appareil est endommagé de cette manière, la garantie devient caduque. De plus, il y a risque d'électrocution.
7. Ne pas essayer d'intervenir ou de réparer l'appareil. Le

fabricant décline toute responsabilité en cas de blessure corporelle ou de dégâts matériels résultant d'une opération d'entretien quelconque effectuée par des personnes non qualifiées ou résultant de l'ouverture du couvercle arrière. S'adresser aux services après-vente autorisés.

Pour éviter des dommages et prolonger la durée de service de l'appareil:

1. N'utiliser qu'une source d'alimentation de 100-240 V 50/60 Hz CA. Le fait d'utiliser l'appareil en continu à des tensions de ligne supérieures à 100-240 Volts CA réduit sa durée de vie et risque de provoquer un incendie.
2. Manipuler l'appareil avec soin pendant son déplacement et ne pas le faire tomber.
3. Eloigner l'appareil des endroits chauds, très poussiéreux et exposés en plein soleil.
4. Éviter que des liquides et des petits objets métalliques pénètrent à l'intérieur de l'appareil. En cas d'incident de ce genre, débrancher le câble d'alimentation électrique et confier le moniteur à un service après-vente agréé.
5. Ne pas frapper ou rayer la surface de la écran plasma, car des défauts risquent de se produire sur la surface de la écran plasma.
6. Pour un montage et une installation correcte, il est fortement recommandé de faire appel à un revendeur agréé et qualifié.
7. Comme c'est le cas pour tout affichage à base de phosphore (comme un moniteur CRT, par exemple), la puissance de lumière baisse graduellement au cours de la vie du Panneau d'Affichage à Plasma.
8. Pour éviter tout risque de sulfuration, il est fortement conseillé de ne pas installer l'appareil dans un vestiaire, un bain public ou un bain de source thermale.
9. Ne pas utiliser dans un véhicule en marche car l'unité pourrait tomber ou glisser et provoquer des blessures.
10. Pour éviter l'inflammation ou les chocs électriques, ne pas placer l'unité sur la tranche, à l'envers ou avec l'écran vers le bas ou vers le haut.

Méthode de nettoyage du moniteur à plasma:

1. Nettoyer le panneau avant et le cadre en procédant à l'aide d'un chiffon doux et sec. Ne jamais utiliser de solvants du type alcool ou diluant pour le nettoyage de ces surfaces.
2. Nettoyer les prises d'aération du plasma en procédant à l'aide d'une brosse à poils doux fixée à un aspirateur.
3. Pour garantir la bonne ventilation du moniteur, nettoyer les prises d'air tous les mois. Un nettoyage plus fréquent peut s'avérer nécessaire selon les conditions environnantes dans lesquelles le moniteur à plasma est utilisé.

Pour éviter les risques de brûlage du luminophore, les mesures suivantes sont recommandées:

Comme tous les périphériques d'affichage à base luminophore et tous les autres affichages gaz plasma, les moniteurs plasma peuvent être sujets au brûlage du luminophore dans certaines circonstances. Certaines conditions d'utilisation, telles que l'affichage continu d'une image statique pour une durée prolongée, peuvent causer le brûlage du luminophore si aucune précaution n'est prise. Pour protéger votre investissement dans ce moniteur à plasma, veuillez suivre les directives et les conseils suivantes pour minimiser l'occurrence le marquage de l'écran:

- Assurez-vous de mettre en marche et d'utiliser l'économisateur d'écran chaque fois que c'est possible lorsque vous l'utilisez avec une source d'entrée d'ordinateur.
- Affichez une image en mouvement aussi souvent que possible.
- Changez la position de l'affichage de menu de temps à autre.
- Coupez toujours l'alimentation lorsque vous avez terminé d'utiliser la moniteur.

Si le moniteur est en usage continu ou longue durée, prenez les mesures suivantes afin d'éviter l'occurrence le brûlage du luminophore:

- Abaissez le niveau de l'image (contraste, luminosité) autant que possible, sans faire perdre la lisibilité de l'image.
- Affichez une image avec de nombreuses couleurs et graduations de couleur (par ex. des images photographiques ou photo-réalistes).
- Créez un contenu d'image avec un contraste minimal entre les zones sombres et les zones claires, par exemple, des caractères blancs sur un fond noir. Utilisez des couleurs complémentaires ou pastels le plus souvent possible.
- Évitez d'afficher des images avec peu de couleurs et des limites nettes et clairement définies entre les couleurs.

* **Remarque:** Le brûlage de l'écran n'est pas couvert par la garantie.

Contactez un revendeur agréé ou un revendeur de marque pour d'autres procédures qui conviendront le mieux à vos besoins particuliers.

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Contents of the Package

- ☐ Plasma monitor
- ☐ Power cord
- ☐ Remote control with two AAA Batteries
- ☐ Manuals (Model Information and Operation)
- ☐ Safety metal fittings*
- ☐ Ferrite cores, bands
- ☐ Cable clamps
- ☐ HDMI-DVI cable

* Contents will differ according to the model.

* These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws (see page 6).

Options

- Wall mount unit
- Ceiling mount unit
- Tilt mount unit
- Stand
- Attachable speakers

Installation

You can attach your optional mounts or stand to the plasma monitor in one of the following two ways:

- * While it is upright. (See Drawing A)
- * As it is laid down with the screen face down (See Drawing B). Lay the protective sheet, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.
- * Do not touch or hold the screen face when carrying the unit.

• **This device cannot be installed on its own. Be sure to use a stand or original mounting unit. (Wall mount unit, Stand, etc.)**

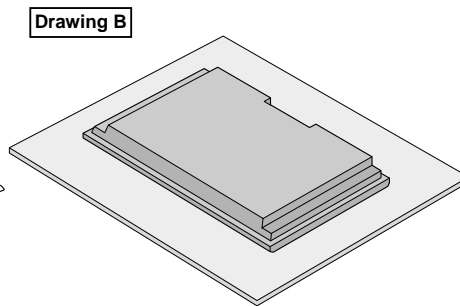
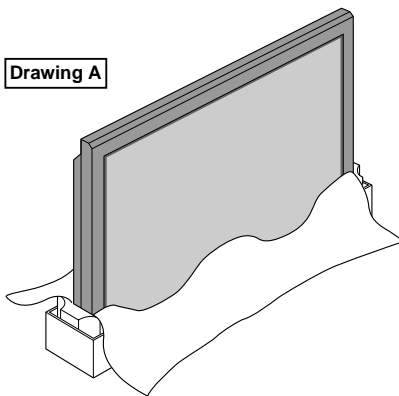
* See page 5.

• **For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.**

Failure to follow correct mounting procedures could result in damage to the equipment or injury to the installer.

Product warranty does not cover damage caused by improper installation.

* **Use only the mounting kit or stand provided by manufacturer and listed under Options.**

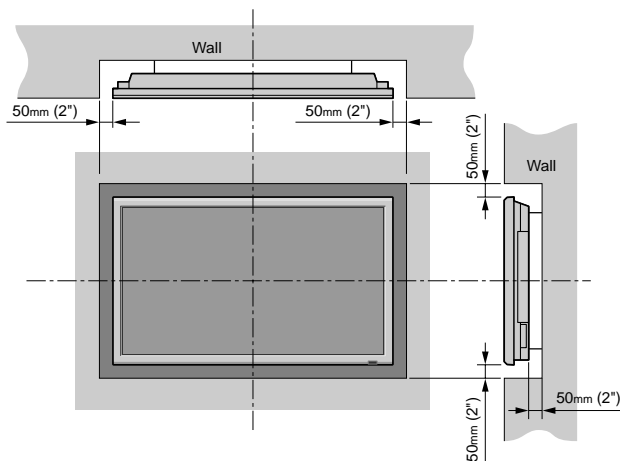


When installing or carrying, use the handles attached to the upper back of the display.



Ventilation Requirements for enclosure mounting

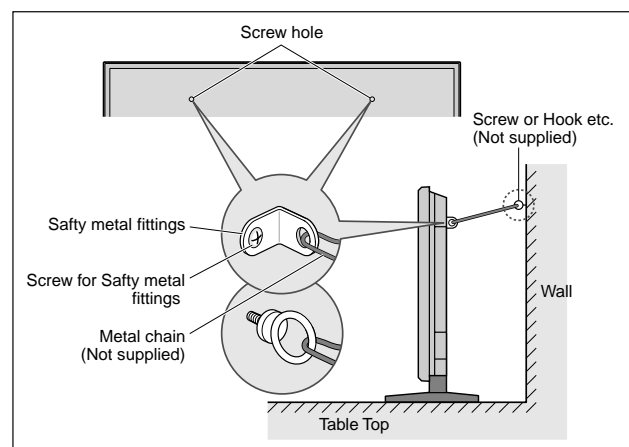
To allow heat to disperse, leave space between surrounding objects as shown on the diagram below when installing.



How to use the safety metal fittings and the screws for safety metal fittings

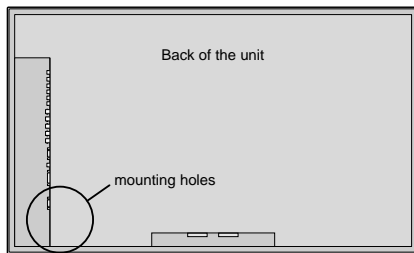
These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws.

* Safety metal fittings will differ according to the model.

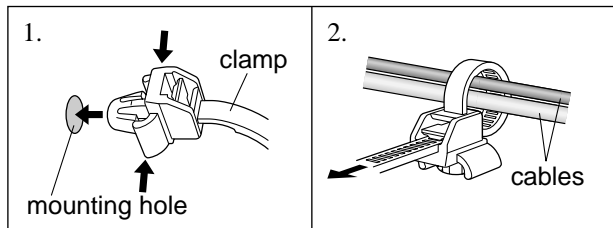


Cable Management

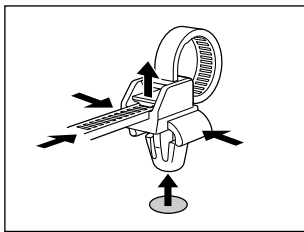
Using the cable clamps provided with the plasma display, bundle at the back of the unit the signal and audio cables connected to the display.



To attach



To detach

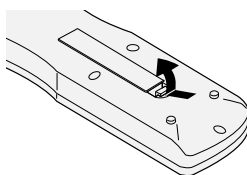


How to use the remote control

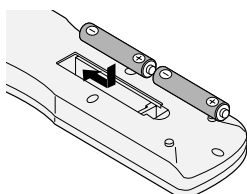
Battery Installation and Replacement

Insert the 2 "AAA" batteries, making sure to set them in with the proper polarity.

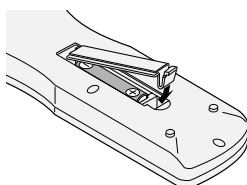
1. Press and open the cover.



2. Align the batteries according to the (+) and (-) indication inside the case.

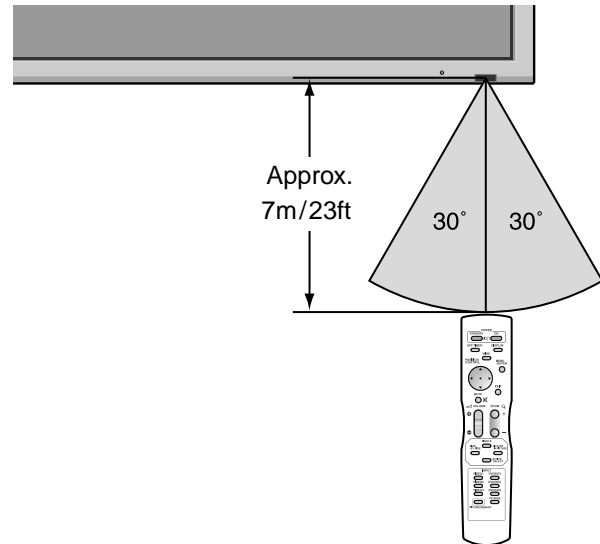


3. Replace the cover.



Operating Range

- * Use the remote control within a distance of about 7 m/ 23ft. from the front of the monitor's remote control sensor and at horizontal and vertical angles of up to approximately 30°.
- * The remote control operation may not function if the monitor's remote control sensor is exposed to direct sunlight or strong artificial light, or if there is an obstacle between the sensor and the remote control.



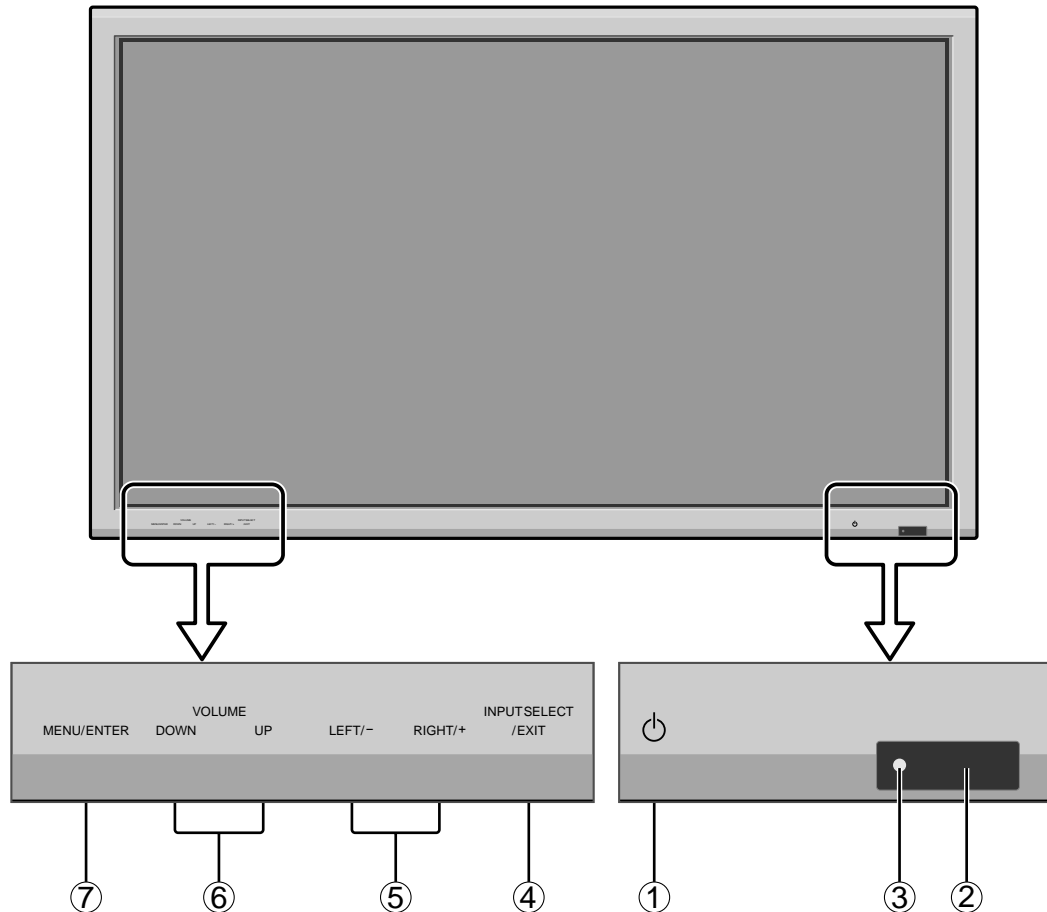
Handling the remote control



- Do not drop or mishandle the remote control.
- Do not get the remote control wet. If the remote control gets wet, wipe it dry immediately.
- Avoid heat and humidity.
- When not using the remote control for a long period, remove the batteries.
- Do not use new and old batteries together, or use different types together.
- Do not take apart the batteries, heat them, or throw them into a fire.

Part Names and Function

Front View

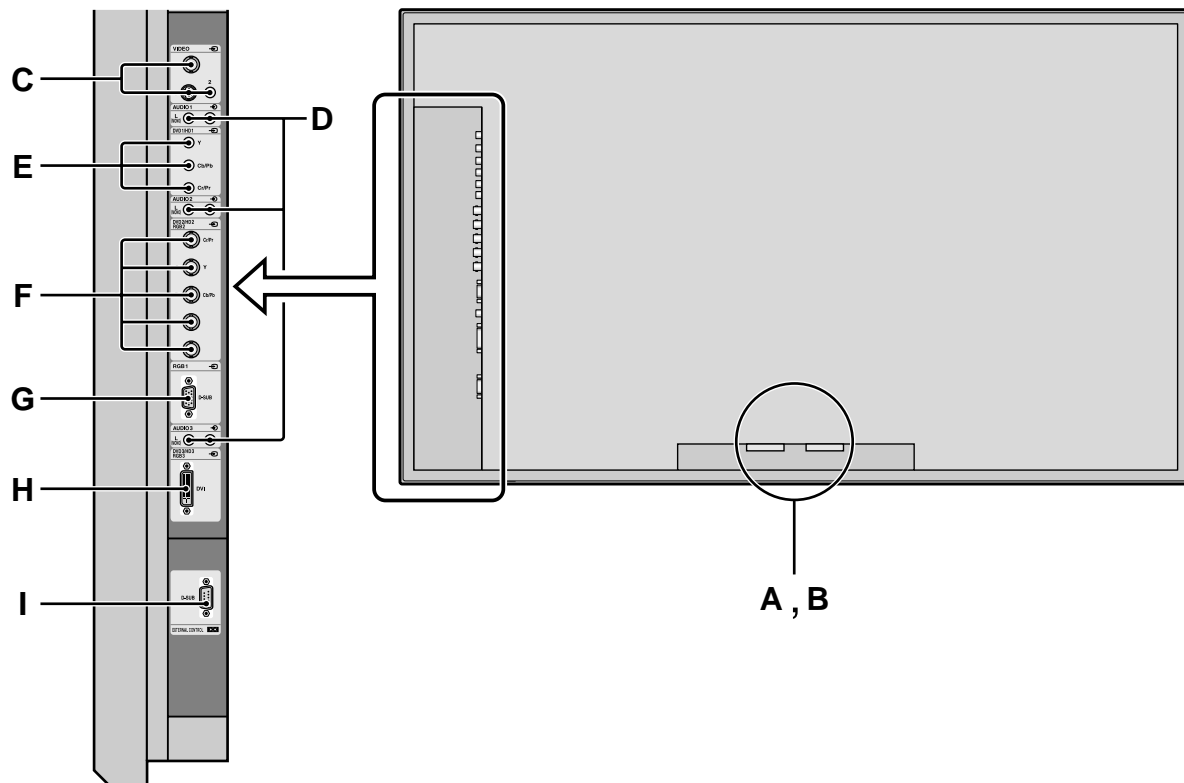


- ① **Power**
Turns the monitor's power on and off.
- ② **Remote sensor window**
Receives the signals from the remote control.
- ③ **POWER/STANDBY indicator**
When the power is on Lights green.
When the power is in the standby mode ... Lights red.
- ④ **INPUT SELECT / EXIT**
Switches the input.
The available inputs depend on the setting of "BNC INPUT", "RGB SELECT" and "DVI SET UP".
Functions as the EXIT buttons in the On-Screen Menu (OSM) mode.
- ⑤ **LEFT/- and RIGHT/+**
Enlarges or reduces the image. Functions as the CURSOR (◀/▶) buttons in the On-Screen Menu (OSM) mode.
- ⑥ **VOLUME DOWN and UP**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Menu (OSM) mode.
- ⑦ **MENU/ENTER**
Sets the On-Screen Menu (OSM) mode and displays the main menu.

WARNING

The Power on/off switch does not disconnect the plasma display completely from the supply mains.

Rear View/ Terminal Board



A AC IN

Connect the included power cord here.

B EXT SPEAKER L and R

Connect speakers (optional) here. Maintain the correct polarity. Connect the \oplus (positive) speaker wire to the \oplus EXT SPEAKER terminal and the \ominus (negative) speaker wire to the \ominus EXT SPEAKER terminal on both LEFT and RIGHT channels.

Please refer to your speaker's owner's manual.

C VIDEO1, 2, 3 (BNC, RCA, S-Video)

Connect VCR's, DVD's or Video Cameras, etc. here.

D AUDIO1, AUDIO2, AUDIO3

These are audio input terminals.

The input is selectable. Set which video image to allot them from the audio menu screen.

E DVD1 / HD1

Connect DVD's, High Definition or Laser Discs, etc. here.

F DVD2/ HD2, RGB2

DVD2/ HD2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.

This input can be set for use with an RGB or component source. (see page 23)

RGB2: You can connect an analog RGB signal and the synchronization signal.

G RGB1 (D-Sub)

Connect an analog RGB signal from a computer, etc. here.

H DVD3/ HD3, RGB3 (DVI)

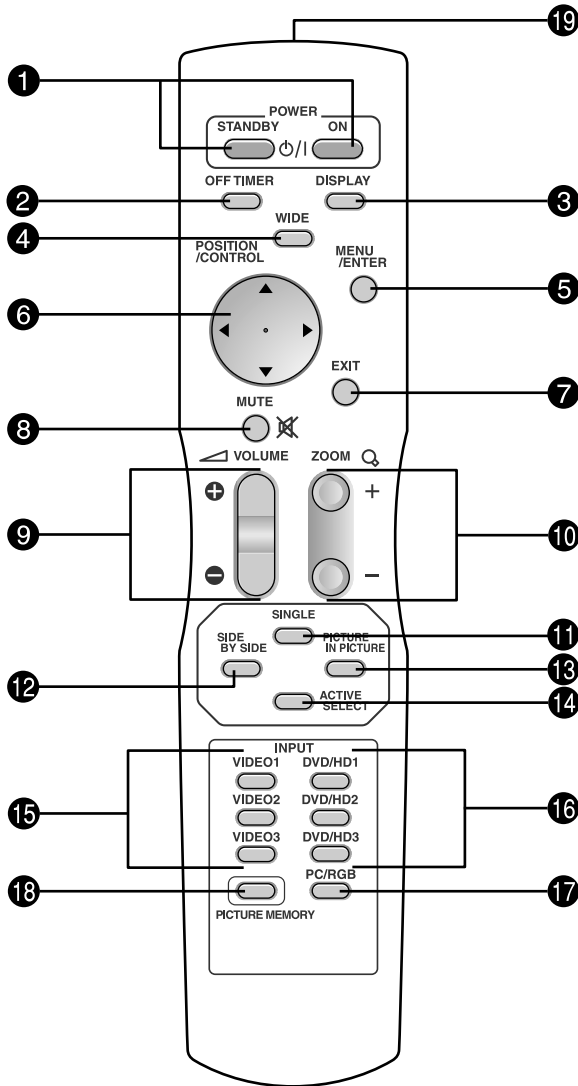
Connect a digital signal (TMDS) from a source with a DVI output.

This input can be set for use with an RGB3 or DVD3/ HD3 source. (see page 24)

I EXTERNAL CONTROL (D-Sub)

This terminal is used when operating and controlling the monitor externally (by external control).

Remote Control



- 8 MUTE**
Mutes the audio.
- 9 VOLUME (+ /-)**
Adjusts the audio volume.
- 10 ZOOM (+ /-)**
Enlarges or reduces the image.
- 11 SINGLE**
Cancels the split screen mode.
- 12 SIDE BY SIDE**
Press this button to show a couple of pictures in the side-by-side mode.
- 13 PICTURE IN PICTURE**
Press this button to show a couple of pictures in the picture-in-picture mode.
- 14 ACTIVE SELECT**
Press this button to make the desired picture activate during split screen mode.
- 15 VIDEO1, 2, 3**
Press this button to select VIDEO as the source. VIDEO can also be selected using the INPUT SELECT button on the monitor.
- 16 DVD/HD1, 2, 3**
Press this button to select DVD/HD as the source. DVD/HD can also be selected using the INPUT SELECT button on the monitor.
- 17 PC/RGB**
Press this button to select PC/RGB as the source. PC/RGB can also be selected using the INPUT SELECT button on the monitor.
- 18 PICTURE MEMORY**
Switches sequentially between picture memory settings 1 to 6.
- 19 Remote control signal transmitter**
Transmits the remote control signals.

- 1 POWER ON/STANDBY**
Switches the power on/standby.
(This does not operate when POWER/STANDBY indicator of the main unit is off.)
- 2 OFF TIMER**
Activates the off timer for the unit.
- 3 DISPLAY**
Displays the source settings on the screen.
- 4 WIDE**
Automatically detects the signal and sets the aspect ratio.
Wide button is not active for all signals.
- 5 MENU/ENTER**
Press this button to access the OSM controls.
Press this button during the display of the main menu to go to the sub menu.
- 6 CURSOR (▲ / ▼ / ◀ / ▶)**
Use these buttons to select items or settings and to adjust settings or switch the display patterns.
- 7 EXIT**
Press this button to exit the OSM controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.

Basic Operations

POWER

To turn the unit ON and OFF:

1. Plug the power cord into an active AC power outlet.
2. Press the Power button (on the unit).
The monitor's POWER/STANDBY indicator turns red and the standby mode is set.
3. Press the POWER ON button (on the remote control) to turn on the unit.
The monitor's POWER/STANDBY indicator will light up (green) when the unit is on.
4. Press the POWER STANDBY button (on the remote control) or the Power button (on the unit) to turn off the unit.
The monitor's POWER/STANDBY indicator turns red and the standby mode is set (only when turning off the unit with the remote control).

VOLUME

To adjust the sound volume:

1. Press and hold the VOLUME \oplus button (on the remote control or the unit) to increase to the desired level.
2. Press and hold the VOLUME \ominus button (on the remote control or the unit) to decrease to the desired level.

MUTE

To mute the audio:

Press the MUTE button on the remote control to mute the audio; press again to restore.


DISPLAY

To check the settings:

1. The screen changes each time the DISPLAY button is pressed.
2. If the button is not pressed for approximately three seconds, the menu turns off.

DIGITAL ZOOM

Digital zoom specifies the picture position and enlarges the picture.

1. (Be sure ZOOM NAV is off.)
Press the ZOOM (+ or -) button to display magnifying glass. ()

To change the size of the picture:

Press the ZOOM+ button and enlarge the picture.

A press of the ZOOM- button will reduce the picture and return it to its original size.

To change the picture position:

Select the position with the \blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright buttons.

2. Press the EXIT button to delete the pointer.

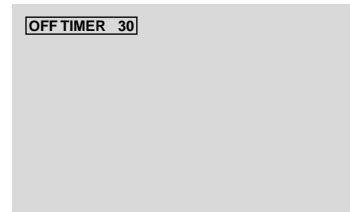
OFF TIMER

To set the off timer:

The off timer can be set to turn the power off after 30, 60, 90 or 120 minutes.

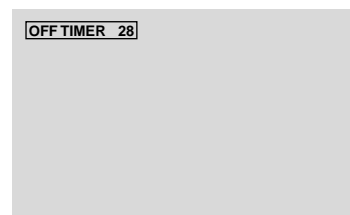
1. Press the OFF TIMER button to start the timer at 30 minutes.
2. Press the OFF TIMER button to the desired time.
3. The timer starts when the menu turns off.

→ 30 → 60 → 90 → 120 → 0



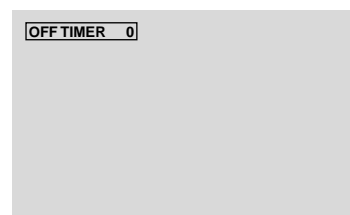
To check the remaining time:

1. Once the off timer has been set, press the OFF TIMER button once.
2. The remaining time is displayed, then turns off after a few seconds.
3. When five minutes remain the remaining time appears until it reaches zero.



To cancel the off timer:

1. Press the OFF TIMER button twice in a row.
2. The off timer is canceled.



Note:

After the power is turned off with the off timer ...
A slight current is still supplied to the monitor. When you are leaving the room or do not plan to use the system for a long period of time, turn off the power of the monitor.

WIDE Operations

Wide Screen Operation (manual)

With this function, you can select one of six screen sizes.

When viewing videos or digital video discs

1. Press the WIDE button on the remote control.

2. *Within 3 seconds ...*

Press the WIDE button again.

The screen size switches as follows:

→ NORMAL → ANAMORPHIC → STADIUM → ZOOM → 2.35:1 → 14:9

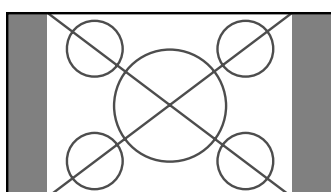
When a 720P or 1080I signal is input:

ANAMORPHIC ↔ 2.35:1

When displaying enhanced split screen:

NORMAL ↔ ANAMORPHIC

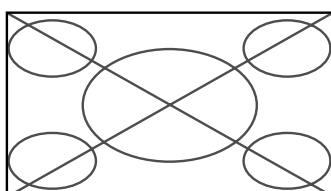
NORMAL size screen (4:3)



The normal size screen is displayed.

* The picture has the same size as video pictures with a 4 : 3 aspect ratio.

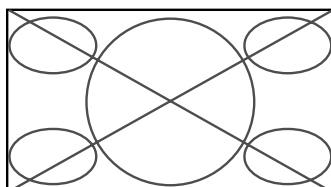
ANAMORPHIC size screen



The image is expanded in the horizontal direction.

* Images compressed in the horizontal direction ("squeezed images") are expanded in the horizontal direction and displayed on the entire screen with correct linearity. (Normal images are expanded in the horizontal direction.)

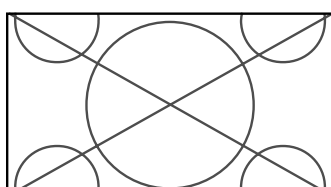
STADIUM size screen



The picture is expanded in the horizontal and vertical directions at different ratios.

* Use this for watching normal video programs (4:3) with a wide screen.

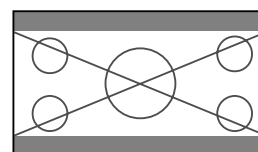
ZOOM size screen



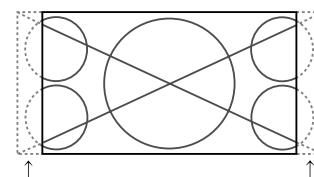
The picture is expanded in the horizontal and vertical direction, maintaining the original proportions.

* Use this for theater size (wide) movies, etc.

2.35:1 size screen



Original image



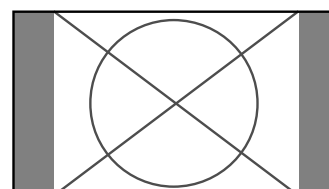
Information is lost on both sides.

The squeezed film image is expanded to fulfill the entire screen at a ratio of 2.35:1. Black bands do not appear at the top and bottom but information is lost on the left and right margins.

• This feature is available when the input signal is video, component (480I, 480P, 576I, 576P, 720P, 1080I) or RGB (525P or 625P signal from a scan converter).

* If black bands appear on the top and bottom in the full size screen, select the 2.35:1 size screen to avoid phosphor burn-in.

14:9 size screen



The image is displayed at a 14:9 aspect ratio.

* This feature is available when the input signal is video, component (480I, 480P, 576I, 576P) or RGB (525P or 625P signal from a scan converter).

Note:

Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

Wide Screen Operation with Computer Signals

Switch to the wide screen mode to expand the 4 : 3 image to fill the entire screen.

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

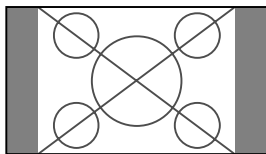
The screen size switches as follows:

→ **NORMAL** → **ANAMORPHIC** → **ZOOM** →

When displaying enhanced split screen:

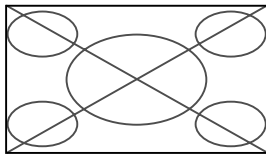
NORMAL ↔ **ANAMORPHIC**

NORMAL size screen (4:3 or SXGA 5:4)



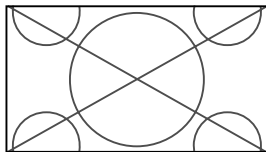
The picture has the same size as the normal computer image.

ANAMORPHIC size screen



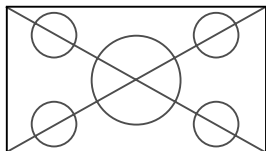
The image is expanded in the horizontal direction.

ZOOM size screen



When wide signals are input.

ANAMORPHIC size screen



Information

■ Supported resolution

See page 7 of Model Information for details on the display output of the various VESA signal standards supported by the monitor.

■ **When 852 (848) dot × 480 line wide VGA* signals with a vertical frequency of 60 Hz and horizontal frequency of 31.7 (31.0) kHz are input**

Select an appropriate setting for RGB SELECT mode referring to the “Table of Signals Supported” on page 7 of Model Information.

* “VGA”, “SVGA” and “SXGA” are registered trademarks of IBM, Inc. of the United States.

Note:

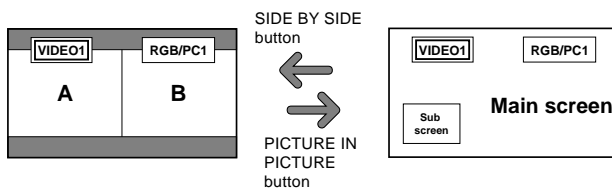
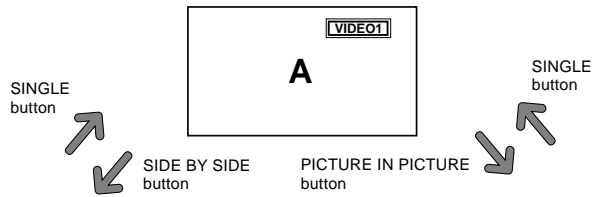
Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

SPLIT SCREEN Operations

Showing a couple of pictures on the screen at the same time

* An RGB-input picture may not be displayed in these modes, depending on the input signal specifications.

1. Press the button to select a screen mode from among single mode, side-by-side, and picture-in-picture.



Note:

Picture A and B on the above screen are not always of the same height.

Information

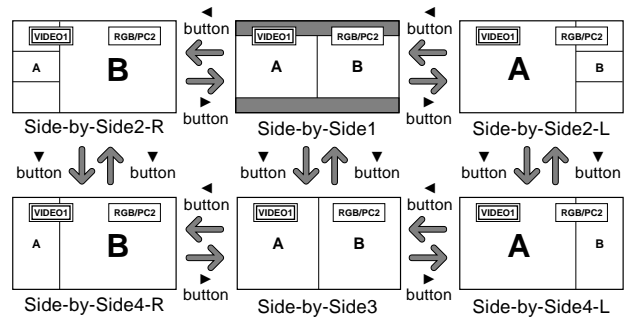
Split screen operations may not function depending on the combination of input signals. In the table below, "○" means Yes, "×" means No.

		Pictures displayed on the right/main screen (Select1)						
		VIDEO1	VIDEO2	VIDEO3	HD/DVD1	HD/DVD2	RGB/PC1	HD/DVD3
Pictures displayed on the left/sub screen (Select2)	VIDEO1	×	×	×	○	○	○	○
	VIDEO2	×	×	×	○	○	○	○
	VIDEO3	×	×	×	○	○	○	○
	HD/DVD1	○	○	○	×	○	○	○
	HD/DVD2	○	○	○	×	×	○	○
	RGB/PC1	○	○	○	○	○	×	○
	HD/DVD3	○	○	○	○	○	○	×
	RGB3							

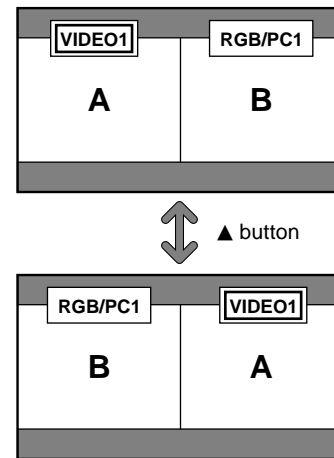
■ Split screen operations may not function depending on the type of the RGB signals.

Operations in the Side-by-side mode

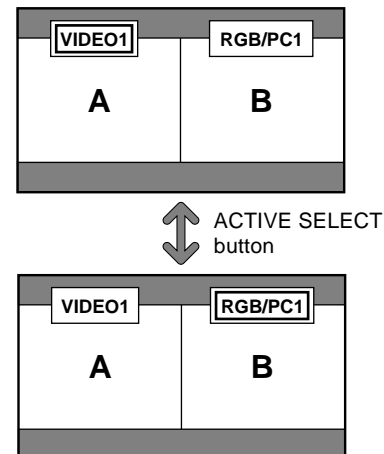
To change the picture size, press the cursor ◀▶ or ▼ button.



To swap the picture on the right and the left, press the cursor ▲ button.

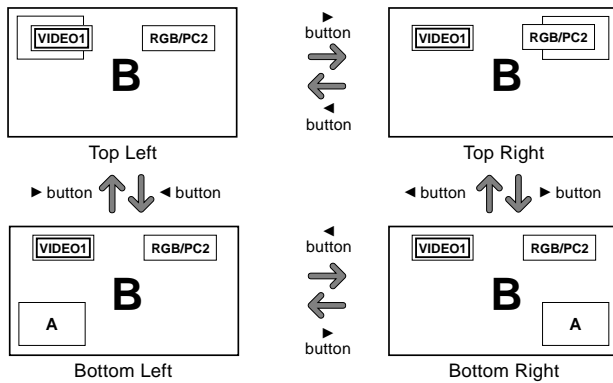


To make the desired picture active, press the ACTIVE SELECT button.

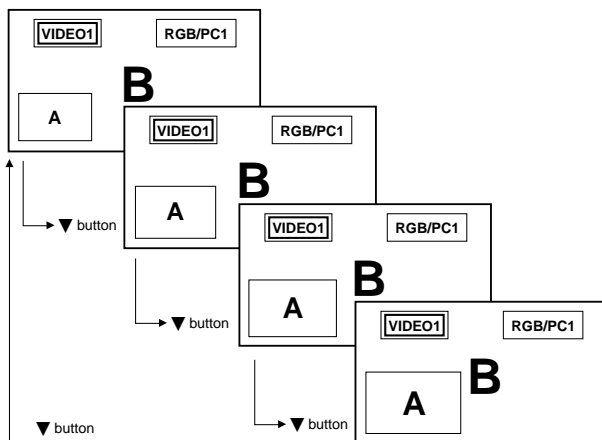


Operations in the Picture-in-picture mode

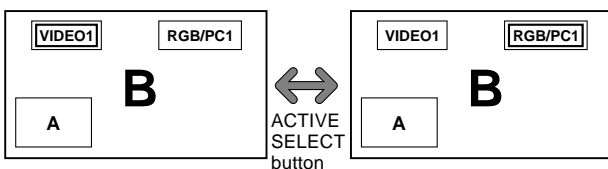
To move the position of the sub screen, press the cursor ◀ or ▶ button.



To change the size of the sub screen, press the ▼ button.



To make the desired picture active, press the ACTIVE SELECT button.



Selecting the input signals to be displayed

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Press the PC/RGB, VIDEO1, 2, 3, or DVD/HD1, 2, 3 button to change the selection of the input signal. The INPUT SELECT button on the monitor can also be used to change the selection.

Zooming up pictures

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Use the ZOOM (+ or -) button to enlarge the picture. For details, see "DIGITAL ZOOM" on page 11.

Adjusting the OSM controls

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Press the MENU/ENTER button to display the MAIN MENU.
3. Adjust the setting to your preference. For details, see "OSM (On Screen Menu) Controls" on page 16.

Note:

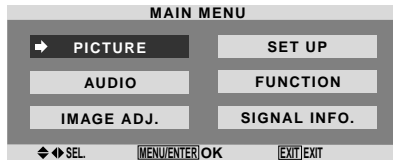
During enhanced split screen, some functions of OSM controls are not available.

OSM (On Screen Menu) Controls

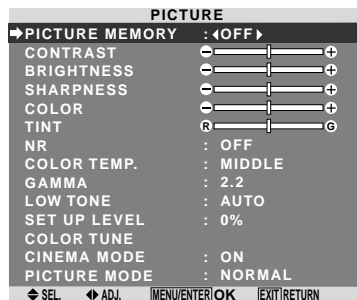
Menu Operations

The following describes how to use the menus and the selected items.

1. Press the MENU/ENTER button on the remote control to display the MAIN MENU.



2. Press the cursor buttons ▲ ▼ on the remote control to highlight the menu you wish to enter.
3. Press the MENU/ENTER button on the remote control to select a sub menu or item.




4. Adjust the level or change the setting of the selected item by using the cursor buttons ◀ ▶ on the remote control.



5. The adjustments or the settings that are stored in memory. The change is stored until you change it again.
 6. Repeat steps 2 – 5 to adjust an additional item, or press the EXIT button on the remote control to return to the main menu.
- * When adjusting using the bar at the bottom of the screen, press the ◀ or ▶ button within 5 seconds. If not, the current setting is set and the previous screen appears.

Note: The main menu disappears by pressing the EXIT button.

Menu Tree

 : Shaded areas indicate the default value.

— ◀ → + : Press the ◀ or ▶ button to adjust. The default value is at the center.

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
PICTURE	PICTURE MEMORY	OFF/MEMORY1-6			YES	19
	CONTRAST	— ◀ → + 0◀52→72			YES	19
	BRIGHTNESS	— ◀ → + 0◀32→64			YES	19
	SHARPNESS	— ◀ → + 0◀16→32			YES	19
	COLOR	— ◀ → + 0◀32→64			YES	19
	TINT	R◀→G 0◀32→64			YES	19
	NR	OFF/NR-1/NR-2/NR-3			YES	19
	COLOR TEMP.	LOW/MIDDLE LOW/MIDDLE/HIGH			YES	20
	WHITE BALANCE	GAIN RED	— ◀ → + 0◀→70		YES	20
		GAIN GREEN	— ◀ → + 0◀→70		YES	20
		GAIN BLUE	— ◀ → + 0◀→70		YES	20
		BIAS RED	— ◀ → + 0◀→70		YES	20
		BIAS GREEN	— ◀ → + 0◀→70		YES	20
		BIAS BLUE	— ◀ → + 0◀→70		YES	20
		RESET	OFF◀→ON		YES	20
	GAMMA	2.1◀2.2→2.3→2.4			YES	20
	LOW TONE	AUTO◀→1◀→3			YES	20
	SET UP LEVEL	0%◀→3.75%◀→7.5%			YES	21
	COLOR TUNE	RED	Y◀→M 0◀→64		YES	21
		GREEN	C◀→Y 0◀→64		YES	21
		BLUE	M◀→C 0◀→64		YES	21
		YELLOW	G◀→R 0◀→64		YES	21
		MAGENTA	R◀→B 0◀→64		YES	21
		CYAN	B◀→G 0◀→64		YES	21
		RESET	OFF◀→ON		YES	21
	CINEMA MODE	ON◀→OFF			YES	21
	PICTURE MODE	DEFAULT/THEATER1/THEATER2/NORMAL/BRIGHT			YES	21

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
AUDIO	BASS	— ◀ → + 0◀13→26			YES	22
	TREBLE	— ◀ → + 0◀13→26			YES	22
	BALANCE	L◀→R -22◀0→+22			YES	22
	AUDIO INPUT1	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	22
	AUDIO INPUT2	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	22
	AUDIO INPUT3	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	22

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
IMAGE ADJUST	ASPECT MODE	ZOOM/NORMAL/ANAMORPHIC/STADIUM/14:9/2.35:1			NO	22
	V-POSITION	— ◀ → + -64◀0→+64			YES	22
	H-POSITION	— ◀ → + -128◀0→+127			YES	22
	V-HEIGHT	— ◀ → + 0◀→64			YES	22
	H-WIDTH	— ◀ → + 0◀→64			YES	22
	AUTO PICTURE	ON◀→OFF*2			NO	22
	FINE PICTURE*1	— ◀ → + *2 0◀→64			YES	22
	PICTURE ADJ.*1	— ◀ → + *2 0◀→128			YES	22

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
SET UP	LANGUAGE	ENGLISH/DEUTSCH/FRANÇAIS/ESPAÑOL/ITALIANO/SVENSKA/中文/РУССКИЙ			NO	23
	BNC INPUT	RGB◀→COMPONENT			YES	23
	D-SUB INPUT	RGB			YES	23
	HD SELECT	1080I/1035I/540P			NO	23
	RGB SELECT	AUTO/STILL/MOTION/WIDE1/WIDE2/WIDE3/DTV			YES	23
	DVI SET UP	PLUG/PLAY	PC◀→STB/DVD		NO	24
		BLACK LEVEL	LOW◀→HIGH		NO	24
		COLOR SYSTEM	AUTO/PAL/PAL-M/PAL-N/PAL 60/SECAM/4.43 NTSC/3.58NTSC		NO	24
	BACK GROUND	BLACK/GRAY			YES	24
	GRAY LEVEL	0◀→3◀→15			YES	25
	S1/S2	AUTO◀→OFF			YES	25
	DISPLAY OSM	ON◀→OFF			YES	25
	OSM ADJ.	TOP LEFT◀→TOP CENTER◀→TOP RIGHT◀→BTM LEFT◀→BTM CENTER◀→BTM RIGHT			YES	25
	ALL RESET	ON◀→OFF			—	25

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
FUNCTION	POWER MGT.	ON↔OFF			YES	26
	INPUT SKIP	ON↔OFF			YES	26
	SUB. P DETECT	AUTO↔OFF			YES	26
	ZOOM NAV	OFF↔S BY S↔BTM LEFT↔BTM RIGHT↔TOP RIGHT↔TOP LEFT			YES	27
	PICTURE FREEZE	OFF↔S BY S1↔S BY S2↔BTM LEFT↔BTM RIGHT↔TOP RIGHT↔TOP LEFT			YES	27
	PDP SAVER	MANUAL/AUTO			YES	27
		PEAK BRIGHT	100%/75%/50%/25%		YES	28
		ORBITER	OFF/AUTO1/AUTO2		YES	28
		INVERSE/WHITE	OFF/INVERSE/WHITE		YES	28
		SCREEN WIPER	ON/OFF		YES	28
		SOFT FOCUS	OFF/LEVEL1-4		YES	28
		OSM ORBITER	ON/OFF		YES	29
		OSM CONTRAST	LOW/NORMAL		YES	29
	CLOSED CAPTION	OFF/CAPTION1-4/TEXT1-4			YES	29
	CAPTION CONT	LOW/NORMAL			YES	29

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
SIGNAL INFO.					—	29

*1 Only when AUTO PICTURE is OFF.

*2 RGB/PC only

Information

■ Restoring the factory default settings

Select "ALL RESET" under the SET UP menu. Note that this also restores other settings to the factory defaults.

Picture Settings Menu

Storing picture settings

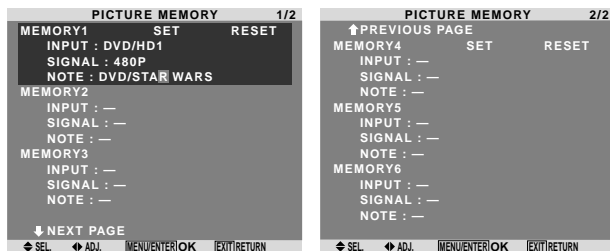
This function allows you to store in memory the current input signal and PICTURE menu settings and to recall these settings when necessary.

There are six picture memories, and notes of up to 15 characters can be added to each.

Example: Storing picture settings at MEMORY1

On “PICTURE MEMORY” of “PICTURE” menu, select “MEMORY1”, then press the MENU/ENTER button.

The “PICTURE MEMORY” screen appears.



Information

■ PICTURE MEMORY Settings

OFF: Picture memory not used.

MEMORY1 to 6: Picture memory with the specified number used. Maximum memories are 6, not depending on inputs.

■ Setting the memory

- Use the ▲ and ▼ button to select the desired memory place, MEMORY1 to MEMORY6.
- Use the ◀ and ▶ buttons to select “SET”, then press the MENU/ENTER button.
- If necessary, input a note.

■ Resetting the memory

Use the ▲ and ▼ button to select the desired memory place, MEMORY1 to MEMORY6, then use the ◀ and ▶ buttons to select “RESET”, and finally press the MENU/ENTER button.

The memory is cleared, and “—” is displayed in the “INPUT”, “SIGNAL” and “NOTE” columns.

■ Inputting notes

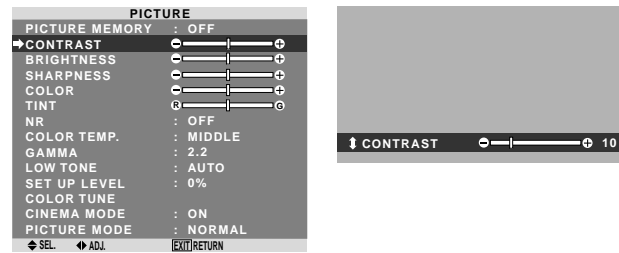
- Use the ◀ and ▶ buttons to select “NOTE”, then press the MENU/ENTER button.
- Input the note.
 - Use the ▲ and ▼ button to select the character.
 - Use the ◀ and ▶ buttons to move the cursor.
 - Use the EXIT button to delete the character at the cursor position.
- When you have finished inputting the note, press the MENU/ENTER button.

Adjusting the picture

The contrast, brightness, sharpness, color and tint can be adjusted as desired.

Example: Adjusting the contrast

On “CONTRAST” of “PICTURE” menu, adjust the contrast.



Note: If “CAN NOT ADJUST” appears ...

When trying to enter the PICTURE submenu, make sure PICTURE MODE is not set to DEFAULT.

Information

■ Picture adjustment screen

CONTRAST: Changes the picture’s white level.

BRIGHTNESS: Changes the picture’s black level.

SHARPNESS: Changes the picture’s sharpness.

Adjusts picture detail of VIDEO display.

COLOR: Changes the color density.

TINT: Changes the picture’s tint. Adjust for natural colored skin, background, etc.

■ Adjusting the computer image

Only the contrast and brightness can be adjusted when a computer signal is connected.

■ Restoring the factory default settings

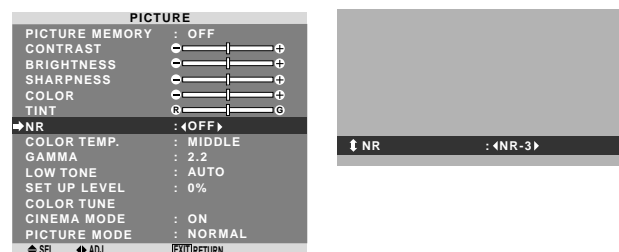
Select “DEFAULT” under the “PICTURE MODE” settings.

Reducing noise in the picture

Use these settings if the picture has noise due to poor reception or when playing video tapes on which the picture quality is poor.

Example: Setting “NR-3”

On “NR” of “PICTURE” menu, select “NR-3”.



Information

■ NR

* “NR” stands for Noise Reduction.

* This function reduces noise in the picture.

■ Types of noise reduction

There are three types of noise reduction. Each has a different level of noise reduction.

The effect becomes stronger as the number increases (in the order NR-1 → NR-2 → NR-3).

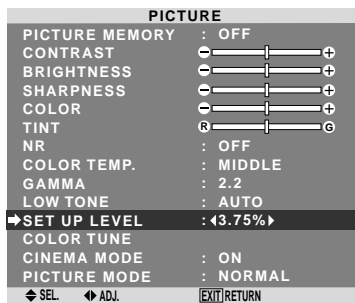
OFF: Turns the noise reduction function off.

Adjusting the pedestal level (black level)

This feature adjusts the video black level in a video image.

Example: Setting “3.75%”

On “SET UP LEVEL” of “PICTURE” menu, select “3.75%”.



Information

■ SET UP LEVEL settings

0%: Normal status

3.75%: 3.5% lower than normal

7.5%: 7.5% lower than normal

Adjusting the colors

Use this procedure to adjust hue and color density for red, green, blue, yellow, magenta and cyan.

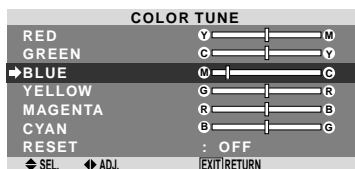
You can accentuate the green color of trees, the blue of the sky, etc.

Example: Adjusting the color tune for blue

On “PICTURE” menu, select “COLOR TUNE”, then press the MENU/ENTER button.

The “COLOR TUNE” screen appears.

On “BLUE” of “COLOR TUNE”, adjust the color tune.



Information

■ COLOR TUNE settings

RED: Makes red's adjustment

GREEN: Makes green's adjustment

BLUE: Makes blue's adjustment

YELLOW: Makes yellow's adjustment

MAGENTA: Makes magenta's adjustment

CYAN: Makes cyan's adjustment

RESET: Resets settings to the factory default value.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

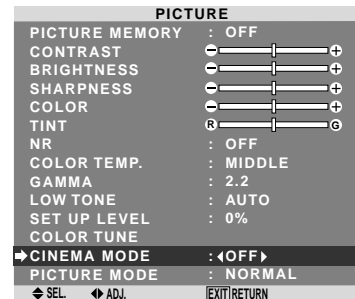
Setting the picture to suit the movie

The film image is automatically discriminated and projected in an image mode suited to the picture.

[NTSC, PAL, PAL60, 480I (60Hz), 525I (60Hz), 576I (50Hz), 625I (50Hz), 1035I (60Hz), 1080I (60Hz) only]

Example: Setting the “CINEMA MODE” to “OFF”

On “CINEMA MODE” of “PICTURE” menu, select “OFF”.



Information

■ CINEMA MODE

ON: Automatic discrimination of the image and projection in cinema mode.

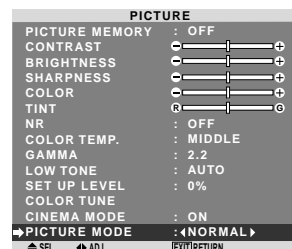
OFF: Cinema mode does not function.

Setting the picture mode according to the brightness of the room

There are four picture modes that can be used effectively according to the environment in which you are viewing the display.

Example: Setting the “THEATER1” mode

On “PICTURE MODE” of “PICTURE” menu, select “THEATER1”.



Information

■ Types of picture modes

THEATER1, 2: Set this mode when watching video in a dark room.

This mode provides darker, finer pictures, like the screen in movie theaters.

For a darker image, select THEATER2.

NORMAL: Set this mode when watching video in a bright room.

This mode provides dynamic pictures with distinct differences between light and dark sections.

BRIGHT: This mode provides brighter pictures than NORMAL.

DEFAULT: Use this to reset the picture to the factory default settings.

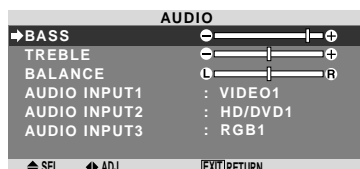
Audio Settings Menu

Adjusting the treble, bass and left/right balance and audio input select

The treble, bass and left/right balance can be adjusted to suit your tastes.

Example: Adjusting the bass

On "BASS" of "AUDIO" menu, adjust the bass.



Note : If "CAN NOT ADJUST" appears...
Set "AUDIO INPUT" on the AUDIO menu correctly.

Information

■ Audio settings menu

BASS: Controls the level of low frequency sound.
TREBLE: Controls the level of high frequency sound.
BALANCE: Controls the balance of the left and right channels.

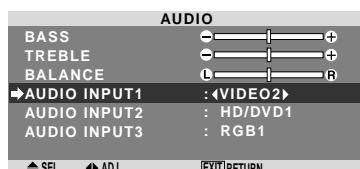
Setting the allocation of the audio connectors

Setting the AUDIO 1, 2, and 3 connectors to the desired input.

Example: Setting "AUDIO INPUT1" to "VIDEO 2"

On "AUDIO INPUT1" of "AUDIO" menu, select "VIDEO2".

The available sources depend on the settings of input.



Information

■ AUDIO INPUT

A single audio input cannot be selected as the audio channel for more than one input terminal.

Image Adjust Settings Menu

Adjusting the Position, Size, Fine Picture, Picture Adj

The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position in the normal mode

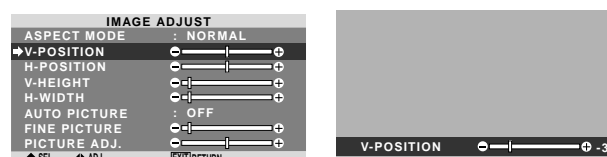
On "V-POSITION" of "IMAGE ADJUST" menu, adjust the position.

The mode switches as follows each time the ◀ or ▶ button is pressed:

NORMAL ↔ ANAMORPHIC

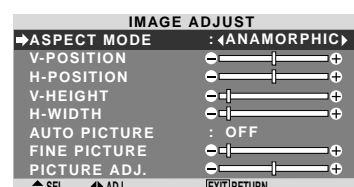
* The mode can also be switched by pressing the WIDE button on the remote control.

* The settings on the IMAGE ADJUST menu are not preset at the factory.



Information

■ When "AUTO PICTURE" is "OFF"



When Auto Picture is off, the Fine Picture and the Picture ADJ. items are displayed so that you can adjust them.

■ Adjusting the Auto Picture

ON: The Picture ADJ., Fine Picture and Position adjustments are made automatically.

Not available for digital ZOOM.

OFF: The Picture ADJ., Fine Picture and Position adjustments are made manually.

* If FINE PICTURE can't be adjusted, set Auto Picture to OFF and adjust manually.

■ Adjusting the position of the image

V-POSITION: Adjusts the vertical position of the image.

H-POSITION: Adjusts the horizontal position of the image.

V-HEIGHT: Adjusts the vertical size of the image. (Except for STADIUM mode)

H-WIDTH: Adjusts the horizontal size of the image. (Except for STADIUM mode)

FINE PICTURE*: Adjusts for flickering.

PICTURE ADJ.*: Adjusts for striped patterns on the image.

* The Picture ADJ. and Fine Picture features are available only when the "Auto Picture" is off.

* The AUTO PICTURE, FINE PICTURE and PICTURE ADJ. are available only for RGB signals. But, these features are not available for moving pictures on VIDEO, HD/DVD or RGB.

SET UP Settings Menu

Setting the language for the menus

The menu display can be set to one of eight languages.

Example: Setting the menu display to “DEUTSCH”

On “LANGUAGE” of “SET UP” menu, select “DEUTSCH”.

SET UP	
→LANGUAGE	: <DEUTSCH>
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ Language settings

ENGLISH	English	ITALIANO	Italian
DEUTSCH	German	SVENSKA	Swedish
FRANÇAIS	French	中文	Chinese
ESPAÑOL	Spanish	РУССКИЙ	Russian

Setting the BNC connectors

Select whether to set the input of the 5 BNC connectors to RGB and component.

Example: Set the BNC INPUT mode to “RGB”

On “BNC INPUT” of “SET UP” menu, select “RGB”.

SET UP	
LANGUAGE	: ENGLISH
→BNC INPUT	: <RGB>
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ BNC INPUT Settings

RGB: Use the 5BNC terminals for RGB input.

COMPONENT: Use the 3BNC terminals for component input.

Checking the signal being transmitted to RGB1 terminal

Use this to confirm the signal being transmitted to the RGB1 terminal.

It is set to RGB and can not be adjusted.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
→D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
CAN NOT ADJUST	

Setting high definition images to the suitable screen size

Use this procedure to set whether the number of vertical lines of the input high definition image is 1080I or 1035I or 540P.

Example: Setting the “HD SELECT” mode to “1035I”

On “HD SELECT” of “SET UP” menu, select “1035I”.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
→HD SELECT	: <1035I>
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ HD SELECT modes

These 3 modes are not displayed in correct image automatically.

1080I: Standard digital broadcasts

1035I: Japanese “High Vision” signal format

540P: Special Digital broadcasts (for example : DTC100)

Setting a computer image to the correct RGB select screen

With the computer image, select the RGB Select mode for a moving image such as (video) mode, wide mode or digital broadcast.

Example: Setting the “RGB SELECT” mode to “MOTION”

On “RGB SELECT” of “SET UP” menu, select “MOTION”.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
→RGB SELECT	: <MOTION>
DVI SET UP	: 1024×768
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information**■ RGB SELECT modes**

One of these 7 modes must be selected in order to display the following signals correctly.

AUTO: Select the suitable mode for the specifications of input signals as listed in the table “Computer input signals supported by this system” on page 7 of Model Information.

STILL: To display VESA standard signals. (Use this mode for a still image from a computer.)

MOTION: The video signal (from a scan converter) will be converted to RGB signals to make the picture more easily viewable. (Use this mode for a motion image from a computer.)

WIDE1: When an 852 dot × 480 line signal with a horizontal frequency of 31.7kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE1.

WIDE2: When an 848 dot × 480 line signal with a horizontal frequency of 31.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE2.

WIDE3: When an 1920 dot × 1200 line signal with a horizontal frequency of 74.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE3.

DTV: Set this mode when watching digital broadcasting (480P).

See page 7 of Model Information for the details of the above settings.

Setting the signal and black level for DVI signal

Choose the signal for the DVI connector (PC or STB/DVD) and set the black level.

Example: Setting the “PLUG/PLAY” mode to “STB/DVD”

On “SET UP” menu, select “DVI SET UP”, then press the MENU/ENTER button.

The “DVI SET UP” screen appears.

On “PLUG/PLAY” of “DVI SET UP” menu, select “STB/DVD”.

**Information****■ PLUG/PLAY settings**

PC: When connected to the PC signal.

BLACK LEVEL is set to “LOW” automatically.

STB/DVD: When connected to the SET TOP BOX, DVD etc.

BLACK LEVEL is set to “HIGH” automatically.

■ BLACK LEVEL settings

LOW: When connected to the PC signal.

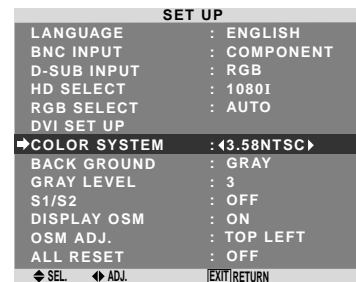
HIGH: When connected to the SET TOP BOX, DVD etc. Change “HIGH” into “LOW” if the black level appears gray.

Setting the video signal format

Use these operations to set the color systems of composite video signals or Y/C input signals.

Example: Setting the color system to “3.58 NTSC”

On “COLOR SYSTEM” of “SET UP” menu, select “3.58NTSC”.

**Information****■ Video signal formats**

Different countries use different formats for video signals. Set to the color system used in your current country.

AUTO: The color systems are automatically identified and the format is set accordingly.

PAL: This is the standard format used mainly in the United Kingdom and Germany.

SECAM: This is the standard format used mainly in France and Russia.

4.43 NTSC, PAL60: This format is used for videos in countries using PAL and SECAM video signals.

3.58 NTSC: This is the standard format used mainly in the United States and Japan.

PAL-M: This is the standard format used mainly in Brazil.

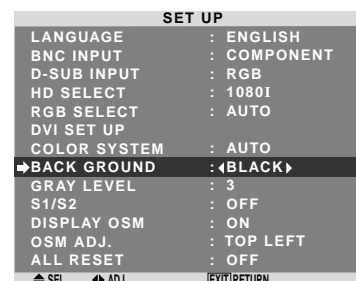
PAL-N: This is the standard format used mainly in Argentina.

Setting the background color when no signal is being input

The color displayed on the background when there is no signal can be set to gray.

Example: Setting “BACK GROUND” to “BLACK”

On “BACK GROUND” of “SET UP” menu, select “BLACK”.

**Information****■ BACK GROUND Settings**

BLACK: Sets the background color to black.

GRAY: Sets the background color to gray.

Setting this makes it easier to see that there is no signal.

Setting the gray level for the sides of the screen

Use this procedure to set the gray level for the parts on the screen on which nothing is displayed when the screen is set to the 4:3 size.

Example: Setting "GRAY LEVEL" to "5"

On "GRAY LEVEL" of "SET UP" menu, select "5".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 5
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
SEL	ADJ. EXIT/RETURN

Information

GRAY LEVEL settings

This adjusts the brightness of the black (the gray level) for the sides of the screen.

The standard is 0 (black). The level can be adjusted from 0 to 15. The factory setting is 3 (dark gray).

Setting the screen size for S1/S2 video input

If the S-video signal contains screen size information, the image will be automatically adjusted to fit the screen when this S1/S2 is set to AUTO.

This feature is available only when an S-video signal is input via the VIDEO3 terminal.

Example: Setting "S1/S2" to "AUTO"

On "S1/S2" of "SET UP" menu, select "AUTO".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: AUTO
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
SEL	ADJ. EXIT/RETURN

Information

S1/S2 settings

AUTO: Adjusts the screen size automatically according to the S1/S2 video signal.

OFF: Turns the S1/S2 function off.

Turning on/off the menu display

When this is set to OFF, the menu will not displayed even if you press the MENU/ENTER button.

Example: Turning the DISPLAY OSM off

On "DISPLAY OSM" of "SET UP" menu, select "OFF".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: OFF
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
SEL	ADJ. EXIT/RETURN

Information

DISPLAY OSM settings

ON: The on-screen menu appears.

OFF: The on-screen menu does not appear.

If you press the DISPLAY button on the remote control for more than 3 seconds the main menu will appear and can be set (although it is not ON).

Setting the position of the menu

Adjusts the position of the menu when it appears on the screen.

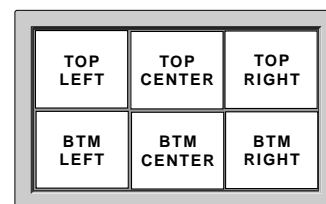
Example: Set the position to "TOP CENTER"

On "OSM ADJ." of "SET UP" menu, select "TOP CENTER".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP CENTER
ALL RESET	: OFF
SEL	ADJ. EXIT/RETURN

Information

OSM ADJUST settings



Resetting to the default values

Use these operations to restore all the settings (PICTURE, AUDIO, IMAGE ADJUST, SET UP, etc) to the factory default values.

Refer to page 17 for items to be reset.

On "ALL RESET" of "SET UP" menu, select "ON", then press the MENU/ENTER button.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: ON
SEL	ADJ. EXIT/RETURN



When the "SETTING NOW" screen disappears, then all the settings are restored to the default values.

Function Settings Menu

Setting the power management for computer images

This energy-saving (power management) function automatically reduces the monitor's power consumption if no operation is performed for a certain amount of time.

Example: Turning the power management function on

On "POWER MGT." of "FUNCTION" menu, select "ON".

FUNCTION	
➔POWER MGT.	: ON
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
ZOOM NAV	: BTM LEFT
PICTURE FREEZE	: S BY S1
PDP SAVER	: MANUAL
CLOSED CAPTION	: OFF
CAPTION CONT	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ Power management function

- * The power management function automatically reduces the monitor's power consumption if the computer's keyboard or mouse is not operated for a certain amount of time. This function can be used when using the monitor with a computer.
- * If the computer's power is not turned on or if the computer and selector tuner are not properly connected, the system is set to the off state.
- * For instructions on using the computer's power management function, refer to the computer's operating instructions.

■ Power management settings

ON: In this mode the power management function is turned on.

OFF: In this mode the power management function is turned off.

■ Power management function and POWER/STANDBY indicator

The POWER/STANDBY indicator indicates the status of the power management function. See below for indicator status and description.

POWER/STANDBY indicator

Power management mode	POWER/STANDBY indicator	Power management operating status	Description	Turning the picture back on
On	Green	Not activated.	Horizontal and vertical synchronizing signals are present from the computer.	Picture already on.
Off	Red	Activated.	Horizontal and/or vertical synchronizing signals are not sent from the computer.	Operate the keyboard or mouse. The picture reappears.

Setting the Input Skip

When this is ON, signals which are not present will be skipped over and only pictures whose signals are being transmitted will be displayed.

This setting is valid only for the INPUT SELECT button on the unit.

Example: Set to "ON"

On "INPUT SKIP" of "FUNCTION" menu, select "ON".

FUNCTION	
POWER MGT.	: OFF
➔INPUT SKIP	: ON
SUB. P DETECT	: AUTO
ZOOM NAV	: BTM LEFT
PICTURE FREEZE	: S BY S1
PDP SAVER	: MANUAL
CLOSED CAPTION	: OFF
CAPTION CONT	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ INPUT SKIP settings

OFF: Regardless of the presence of the signal, scan and display all signals.

ON: If no input signal is present, skip that signal.

- * "SETTING NOW" will appear during the input search.

Erasing the sub screen image when there is no input signal

This function automatically erases the black frame of the sub screen when there is no sub screen input signal.

This feature is available only when the picture-in-picture mode is selected.

Example: Set to "OFF"

On "SUB. P DETECT" of "FUNCTION" menu, select "OFF".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
➔SUB. P DETECT	: OFF
ZOOM NAV	: BTM LEFT
PICTURE FREEZE	: S BY S1
PDP SAVER	: MANUAL
CLOSED CAPTION	: OFF
CAPTION CONT	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ SUB. P DETECT Function

- * The sub screen disappears when the input signal is lost.
- * Loss of the input signal means a condition in which the video signal and the sync signal are not present.
- * Under conditions in which the sub screen has disappeared, the ZOOM NAV and PICTURE FREEZE functions will not work. The WIDE button will not function either.

■ SUB. P DETECT settings

AUTO: The black frame disappears 3 seconds after the input signal is lost.

OFF: Turns off the SUB. P DETECT function.

Displaying the entire image during DIGITAL ZOOM operations

Use this function to display the entire image within the sub screen together with an enlarged image on the main screen.

Example: Setting "ZOOM NAV" to "S BY S"

On "ZOOM NAV" of "FUNCTION" menu, select "S BY S".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
→ ZOOM NAV	: S BY S
PICTURE FREEZE	: S BY S1
PDP SAVER	: MANUAL
CLOSED CAPTION	: OFF
CAPTION CONT	: LOW
◀ SEL	▶ ADJ. [EXIT] RETURN

Information

■ ZOOM NAV Function

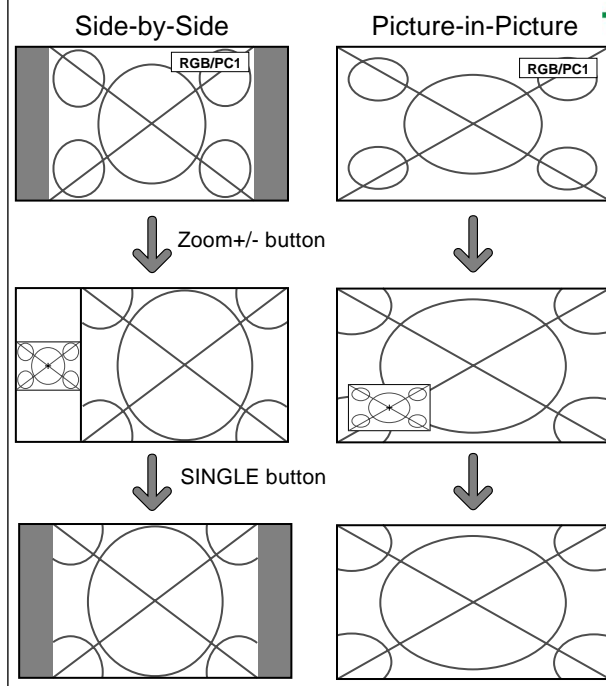
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during multi screen mode.
- * This feature does not function while PICTURE FREEZE is operating.
- * Providing a 2-screen display will cancel this function.

■ ZOOM NAV settings

OFF: Will not show the entire image on the sub screen.

S BY S: Will show the entire image on the sub screen of side-by-side mode.

BTM LEFT~TOP LEFT: Will show the entire image on the sub screen of picture-in-picture mode.



Displaying still images in the sub screen

This feature enables display in the sub screen of still images captured by pressing the ACTIVE SELECT button.

Example: Setting "PICTURE FREEZE" to "BTM LEFT"

On "PICTURE FREEZE" of "FUNCTION" menu, select "BTM LEFT".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
ZOOM NAV	: BTM LEFT
→ PICTURE FREEZE	: BTM LEFT
PDP SAVER	: MANUAL
CLOSED CAPTION	: OFF
CAPTION CONT	: LOW
◀ SEL	▶ ADJ. [EXIT] RETURN

Information

■ PICTURE FREEZE Function

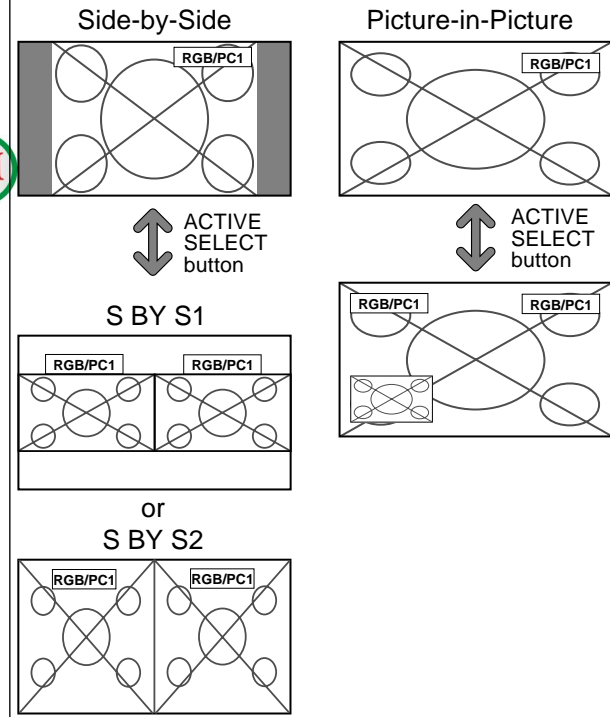
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during multi screen mode.
- * Digital zoom is not available while this function is operating.
- * A further press of the ACTIVE SELECT button while this function is operating will cancel this function.
- * Providing a 2-screen display will cancel this function.

■ PICTURE FREEZE settings

OFF: Will not show the still image.

S BY S1, 2: The still images captured by pressing the ACTIVE SELECT button will be shown on the sub screen of side-by-side mode.

BTM LEFT~TOP LEFT: The still images captured by pressing the ACTIVE SELECT button will be shown on the sub screen of picture-in-picture mode.



Reducing burn-in of the screen

The brightness of the screen, the position of the picture, positive/negative mode and screen wiper are adjusted to reduce burn-in of the screen.

On "PDP SAVER" of "FUNCTION" menu, select "MANUAL", then press the MENU/ENTER button.

The "PDP SAVER" screen appears.

PDP SAVER	
→ PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀ SEL	▶ ADJ. [EXIT] RETURN

Information**■ When set to AUTO**

Set automatically, as described below.

PEAK BRIGHT: 100%

ORBITER: ON

INVERSE/WHITE: OFF

SCREEN WIPER: OFF

SOFT FOCUS: OFF

OSD ORBITER: ON

OSD CONTRAST: LOW

PEAK BRIGHT

Use this to activate the brightness limiter.

Example: Setting "PEAK BRIGHT" to "75%"

On "PEAK BRIGHT" of "PDP SAVER" menu, select "75%".

PDP SAVER	
▶ PEAK BRIGHT	: 75%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀ SEL	▶ ADJ. [EXIT] RETURN

Information**■ PEAK BRIGHT settings**

100%: The brightness of the screen is adjusted automatically to suit the picture quality.

75%, 50%, 25%: Sets maximum brightness.

The brightness level decreases in the order of 75%, 50%, 25%. 25% provides minimum brightness.

* These values are approximate.

ORBITER

Use this to set the picture shift.

Example: Setting "ORBITER" to "AUTO1"

On "ORBITER" of "PDP SAVER" menu, select "AUTO1".

PDP SAVER	
PEAK BRIGHT	: 100%
▶ ORBITER	: AUTO1
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀ SEL	▶ ADJ. [EXIT] RETURN

Information**■ ORBITER settings**

OFF: Orbiter mode does not function.

This is the default setting when RGB is input.

AUTO1: The picture moves around the screen intermittently, making the picture smaller. This is the default setting when a Video or a DVD/HD/DTV signal is input. Set to "OFF" when these signals are not used.

AUTO2: The picture moves around the screen intermittently, making the picture bigger.

* When a Video or a DVD/HD/DTV signal is input, the AUTO1 and 2 functions will affect only the moving picture and will not make the screen smaller or bigger.

INVERSE/WHITE

Use this to set the inverse mode or to display a white screen.

Example: Setting "INVERSE/WHITE" to "WHITE"

On "INVERSE/WHITE" of "PDP SAVER" menu, select "WHITE".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
▶ INVERSE/WHITE	: WHITE
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀ SEL	▶ ADJ. [EXIT] RETURN

Information**■ INVERSE/WHITE Settings**

OFF: Inverse/white mode does not function.

INVERSE: The picture is displayed alternately between positive image and negative image.

WHITE: The entire screen turns white.

SCREEN WIPER

When this is set to ON, a white vertical bar moves repeatedly from the left and of the screen to the right end at a constant speed.

Example: Setting "SCREEN WIPER" to "ON"

On "SCREEN WIPER" of "PDP SAVER" menu, select "ON".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
▶ SCREEN WIPER	: ON
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀ SEL	▶ ADJ. [EXIT] RETURN

Information**■ SCREEN WIPER**

ON: The white vertical bar appears.

OFF: Screen wiper mode does not function.

SOFT FOCUS

Reduces edges and softens the image.

Example: Setting "SOFT FOCUS" to "LEVEL2"

On "SOFT FOCUS" of "PDP SAVER" menu, select "LEVEL2".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
▶ SOFT FOCUS	: LEVEL2
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀ SEL	▶ ADJ. [EXIT] RETURN

Information**■ SOFT FOCUS settings**

OFF: Turns the SOFT FOCUS function off.

LEVEL1, 2, 3, 4: Activates the SOFT FOCUS setting.

The higher numbers create a softer image.

"SHARPNESS" can not be adjusted on the "PICTURE" menu.

OSM ORBITER

Use this to set OSM menu shift.

Example: Setting "OSM ORBITER" to "OFF"

On "OSM ORBITER" of "PDP SAVER" menu, select "OFF".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
➔OSM ORBITER	: <OFF>
OSM CONTRAST	: LOW
◀SEL▶ADJ.	[EXIT]RETURN

Information

■ OSM ORBITER settings

ON: The position of the menu will be shifted by eight dots each time OSM is displayed.

OFF: OSM will be displayed at the same position.

OSM CONTRAST

Use this to reduce the brightness of OSM menu.

Example: Setting "OSM CONTRAST" to "NORMAL"

On "OSM CONTRAST" of "PDP SAVER" menu, select "NORMAL".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
➔OSM CONTRAST	: <NORMAL>
◀SEL▶ADJ.	[EXIT]RETURN

Information

■ OSM CONTRAST settings

NORMAL: OSM brightness is set to normal.

LOW: OSM brightness is set to lower.

Setting Closed Caption

This function sets several closed caption modes that allows text to be superimposed on display.

Example: Setting "CAPTION2"

On "CLOSED CAPTION" of "FUNCTION" menu, select "CAPTION2".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
ZOOM NAV	: BTM LEFT
PICTURE FREEZE	: S BY S1
PDP SAVER	: MANUAL
➔CLOSED CAPTION	: <CAPTION2>
CAPTION CONT	: LOW
◀SEL▶ADJ.	[EXIT]RETURN

Information

■ CLOSED CAPTION settings

OFF: This exits the closed caption mode.

CAPTION1~4: Text is superimposed.

TEXT1~4: Text is displayed in full screen.

A closed caption signal may not be decoded in the following signature;

1. when a video tape has been dubbed.
2. when the signal reception is weak.
3. when the signal reception is nonstandard.

When using closed captioned channel or the text mode, the text screen always appears.

When there is no signal, however, the text screen will not display text characters.

Reducing the brightness of Closed Caption

Use this to reduce the brightness of Closed Caption.

Example: Setting "NORMAL"

On "CAPTION CONT" of "FUNCTION" menu, select "NORMAL".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
ZOOM NAV	: BTM LEFT
PICTURE FREEZE	: S BY S1
PDP SAVER	: MANUAL
CLOSED CAPTION	: OFF
➔CAPTION CONT	: <NORMAL>
◀SEL▶ADJ.	[EXIT]RETURN

Information

■ CAPTION CONT settings

NORMAL: Closed Caption brightness is set to normal.

LOW: Closed Caption brightness is set to lower.

Signal Information Menu

Checking the frequencies, polarities of input signals, and resolution

Use this function to check the frequencies and polarities of the signals currently being input from a computer, etc.

On "MAIN MENU", select "SIGNAL INFO.", then press the MENU/ENTER button.

The "SIGNAL INFORMATION" is displayed.

SIGNAL INFORMATION	
H. FREQUENCY	: 48.4KHz
V. FREQUENCY	: 60.0Hz
H. POLARITY	: NEGATIVE
V. POLARITY	: NEGATIVE
MEMORY	: 24
RESOLUTION	: 1024×768
◀SEL▶ADJ.	[EXIT]RETURN

PC: MEMORY will be displayed.
Others: MODE will be displayed.

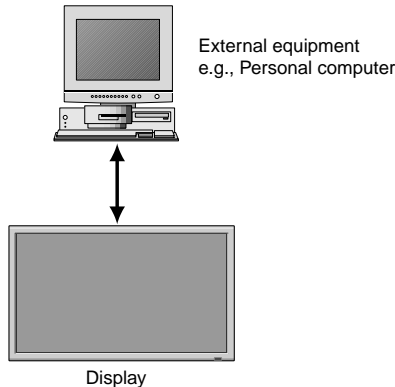
External Control Pin Assignments

Application

These specifications cover the communications control of the plasma monitor by external equipment.

Connections

Connections are made as described below.

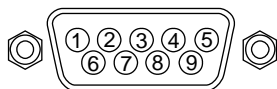


Connector on the plasma monitor side: EXTERNAL CONTROL connector.

Use a crossed (reverse) cable.

Type of connector: D-Sub 9-pin male

Pin No.	Pin Name	Pin No.	Pin Name
1	No Connection	6	DSR (DCE side ready)
2	RXD (Receive data)	7	RTS (Ready to send)
3	TXD (Transmit data)	8	CTS (Clear to send)
4	DTR (DTE side ready)	9	No connection
5	GND		



Communication Parameters

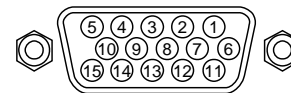
- | | |
|--------------------------|--------------|
| (1) Communication system | Asynchronous |
| (2) Interface | RS-232C |
| (3) Baud rate | 9600 bps |
| (4) Data length | 8 bits |
| (5) Parity | Odd |
| (6) Stop bit | 1 bit |
| (7) Communication code | Hex |

External Control Codes (Reference)

FUNCTION		CODE DATA						
Power ON		9FH	80H	60H	4EH	00H	CDH	
OFF		9FH	80H	60H	4FH	00H	CEH	
Input Switch	Video1 (BNC)	DFH	80H	60H	47H	01H	01H	08H
	Video2 (RCA)	DFH	80H	60H	47H	01H	02H	09H
	Video3 (S-Video)	DFH	80H	60H	47H	01H	03H	0AH
	DVD1/HD1 (RCA)	DFH	80H	60H	47H	01H	05H	0CH
	DVD2/HD2 (BNC)	DFH	80H	60H	47H	01H	06H	0DH
	DVD3/HD3 (DVI)	DFH	80H	60H	47H	01H	0EH	15H
	RGB1 (mini D-sub 15-pin)	DFH	80H	60H	47H	01H	07H	0EH
	RGB2 (5BNC)	DFH	80H	60H	47H	01H	08H	0FH
	RGB3 (DVI)	DFH	80H	60H	47H	01H	0CH	13H
Audio Mute	ON	9FH	80H	60H	3EH	00H	BDH	
	OFF	9FH	80H	60H	3FH	00H	BEH	
Picture Mode	NORMAL	DFH	80H	60H	0AH	01H	01H	CBH
	THEATER 1	DFH	80H	60H	0AH	01H	02H	CCH
	THEATER 2	DFH	80H	60H	0AH	01H	03H	CDH
	DEFAULT	DFH	80H	60H	0AH	01H	04H	CEH
	BRIGHT	DFH	80H	60H	0AH	01H	05H	CFH
Screen Mode	STADIUM	DFH	80H	60H	51H	01H	02H	13H
	ZOOM	DFH	80H	60H	51H	01H	03H	14H
	NORMAL	DFH	80H	60H	51H	01H	04H	15H
	ANAMORPHIC	DFH	80H	60H	51H	01H	05H	16H
	14 : 9	DFH	80H	60H	51H	01H	09H	1AH
	2.35 : 1	DFH	80H	60H	51H	01H	0AH	1BH
Auto Picture	ON	DFH	80H	60H	7FH	03H	03H	09H 00H 4DH
	OFF	DFH	80H	60H	7FH	03H	03H	09H 01H 4EH
Cinema Mode	ON	DFH	80H	60H	C1H	01H	01H	82H
	OFF	DFH	80H	60H	C1H	01H	02H	83H

mini D-Sub 15-pin connector (Analog)

RGB 1



Pin No.	Signal (Analog)
1	Red
2	Green or sync-on-green
3	Blue
4	No connection
5	Ground
6	Red ground
7	Green ground
8	Blue ground
9	No connection
10	Sync signal ground
11	No connection
12	Bi-directional DATA (SDA)
13	Horizontal sync or Composite sync
14	Vertical sync
15	Data clock

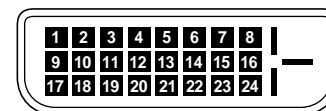
DVI-D 24-pin connector (Digital)

The unit is equipped with a type of connector commonly used for digital.

(This cannot be used for an analog input.)

(TMDS can be used for one link only.)

RGB 3



Pin No.	Signal (Digital)
1	T.M.D.S Data 2 -
2	T.M.D.S Data 2 +
3	T.M.D.S Data 2 Shield
4	No connection
5	No connection
6	DDC Clock
7	DDC Data
8	No connection
9	T.M.D.S Data 1 -
10	T.M.D.S Data 1 +
11	T.M.D.S Data 1 Shield
12	No connection
13	No connection
14	+5V Power
15	Ground
16	Hot Plug Detect
17	T.M.D.S Data 0 -
18	T.M.D.S Data 0 +
19	T.M.D.S Data 0 Shield
20	No connection
21	No connection
22	T.M.D.S Clock Shield
23	T.M.D.S Clock +
24	T.M.D.S Clock -

Note: Contact your local dealer for a full list of the External Control Codes if needed.

Troubleshooting

If the picture quality is poor or there is some other problem, check the adjustments, operations, etc., before requesting service.

Symptom	Checks	Remedy
Mechanical sound is heard.	• Maybe the sound from the cooling fans used to prevent over heating.	
The unit emits a crackling sound.	• Are the image and sound normal?	• If there are no abnormalities in the image and sound, the noise is caused by the cabinet reacting to changes in temperature. This will not affect performance.
Picture is disturbed. Sound is noisy. Remote control operates erroneously.	• Is a connected component set directly in front of or at the side of the display?	• Leave some space between the display and the connected components.
The remote control does not work.	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
Monitor's power does not turn on when the remote control's power button is pressed.	• Is the monitor's power cord plugged into a power outlet?	• Plug the monitor's power cord into a power outlet.
	• Are all the monitor's indicators off?	• Press the power button on the monitor to turn on the power.
	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
Monitor does not operate when the remote control's buttons are pressed.	• Is the remote control pointed at the monitor, or is there an obstacle between the remote control and the monitor?	• Point the remote control at the monitor's remote control sensor when pressing buttons, or remove the obstacle.
	• Is direct sunlight or strong artificial light shining on the monitor's remote control sensor?	• Eliminate the light by closing curtains, pointing the light in a different direction, etc.
	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
No sound or picture is produced.	• Is the monitor's power cord plugged into a power outlet?	• Plug the monitor's power cord into a power outlet.
Picture appears but no sound is produced.	• Is the volume set at the minimum?	• Increase the volume.
	• Is the mute mode set?	• Press the remote control's MUTE button.
	• Are the speakers properly connected?	• Connect the speakers properly.
	• Is AUDIO INPUT set correctly?	• Set AUDIO INPUT on the AUDIO menu correctly.
Poor picture with VIDEO signal input.	• Improper control setting. Local interference. Cable interconnections. Input impedance is not correct level.	• Adjust picture control as needed. Try another location for the monitor. Be sure all connections are secure.
Poor picture with RGB signal input.	• Improper control setting. Incorrect 15 PIN connector pin connections.	• Adjust picture controls as needed. Check pin assignments and connections.
Tint is poor or colors are weak.	• Are the tint and colors properly adjusted?	• Adjust the tint and color (under PICTURE).
Nothing appears on screen.	• Is the computer's power turned on?	• Turn on the computer's power.
	• Is a source connected?	• Connect source to the monitor.
	• Is the power management function in the standby or off mode?	• Operate the computer (move the mouse, etc.).
Part of picture is cut off or picture is not centered.	• Is the position adjustment appropriate?	• Adjust the IMAGE ADJUST properly.
Image is too large or too small.	• Is the screen size adjustment appropriate?	• Press the WIDE button on the remote control and adjust properly.
Picture is unstable.	• Is the computer's resolution setting appropriate?	• Set to the proper resolution.
POWER/STANDBY indicator is lighted in red.	• Horizontal and / or vertical sync signal is not present when the Intelligent Power Manager control is on.	• Check the input signal.
POWER/STANDBY indicator is blinking in red.	• The temperature inside the main unit has become too high and has activated the protector.	• Promptly switch off the power of the main unit and wait until the internal temperature drops. See*1.
POWER/STANDBY indicator is blinking in green and red, or green.	_____	• Promptly switch off the power of the main unit. See *2.

***1 Overheat protector**

If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location and wait for the monitor to cool for 60 minutes. If the problem persists, contact your dealer.

***2 In the following case, power off the monitor immediately and contact your dealer or authorized Service Center.**

The monitor turns off 5 seconds after powering on and then the POWER/STANDBY indicator blinks. It indicates that the power supply circuit, plasma display panel, temperature sensor, or one or more fans have been damaged.

Limited Warranty Plasma Monitors

NEC Solutions, Inc. (hereinafter NEC Solutions) warrants this product to be free from defects in material and workmanship under the following terms and, subject to the conditions set forth below, agrees to repair or replace (at NEC Solutions' sole option) any part of the enclosed unit which proves defective. Replacement parts or products may be new or refurbished and will meet specifications of the original parts or products.

HOW LONG IS THE WARRANTY?

Parts and labor are warranted for (1) one year from the date of the first customer purchase.

WHO IS PROTECTED?

This warranty may be enforced only by the first purchaser.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as specified below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed in the U.S.A. or Canada by NEC Solutions or which is not purchased in the U.S.A. or Canada from an authorized NEC Solutions dealer.
2. Any product of which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
 - a. Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - b. Repair or attempted repair by anyone not authorized by NEC Solutions.
 - c. Any shipment of the product (claims must be presented to the carrier).
 - d. Removal or installation of the product.
 - e. Any other cause which does not relate to a product defect.
 - f. Burns or residual images upon the phosphor of the panel.
4. Cartons, carrying cases, batteries, external cabinets, magnetic tapes, or any accessories used in connection with the product.
5. Service outside of the U.S.A. and Canada.

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items, but we will not pay for the following:

1. Removal or installation charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls. These costs are the responsibility of the NEC Solutions dealer from whom the product was purchased.
3. Shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on your product, consult the dealer from whom you purchased the product.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage. Please also include in any mailing your name, address and a description of the problem(s).
3. For the name of the nearest NEC Solutions authorized service center, call NEC Solutions at 800-836-0655.

LIMITATIONS OF LIABILITY

Except for the obligations specifically set forth in this warranty statement, we will not be liable for any direct, indirect, special, incidental, consequential, or other types of damages, whether based on contract, tort, or any other legal theory, whether or not we have been advised of the possibility of such damages. This warranty is in lieu of all other warranties expressed or implied, including, but not limited to, the implied warranties of merchantability or fitness for a particular purpose.

EXCLUSION OF DAMAGES

NEC Solutions' liability for any defective product is limited to the repair or replacement of the product at our option. NEC Solutions shall not be liable for:

1. Damage to other property caused by any defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or
2. Any other damages whether incidental, consequential or otherwise. Some states do not allow limitation on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

HOW STATE LAW RELATES TO THE WARRANTY

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

FOR MORE INFORMATION,
TELEPHONE 800-836-0655
NEC SOLUTIONS (AMERICA), INC.
1250 N. Arlington Heights Road, Suite 400
Itasca, Illinois 60143-1248

Note: All products returned to NEC Solutions (America), Inc. for service **MUST** have prior approval. To get approval, call NEC Solutions (America), Inc. at 800-836-0655.



NEC Solutions (America), Inc.
1250 N. Arlington Heights Road, Suite 400
Itasca, Illinois 60143-1248

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7S801441



PX-50XR4G

Model Information

Modell-Informationen

Informations modèle

Información del modelo

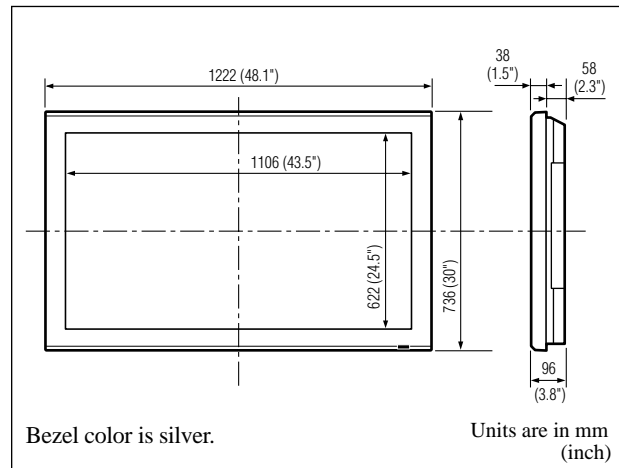
Informazioni sul modello

Информация о модели

Specifications

For the operation of your plasma monitor, refer to "Operation Manual".

Screen Size	1106(H) × 622(V) mm 43.5"(H) × 24.5"(V) inches diagonal 50"
Aspect Ratio	16 : 9
Resolution	1365(H) × 768(V) pixels
Pixel Pitch	0.81(H) × 0.81(V) mm 0.032"(H) × 0.032"(V) inches
Color Processing	4,096 steps, 68.7 billion colors
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD* ¹ , DVD* ¹ , DTV* ¹
Input Terminals	
RGB	
Visual 1 (Analog)	mini D-sub 15-pin × 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) × 1* ²
Visual 3 (Digital)	DVI-D 24-pin × 1* ³
Video	
Visual 1	BNC × 1
Visual 2	RCA-pin × 1
Visual 3	S-Video: DIN 4-pin × 1
DVD/HD/DTV	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) × 1* ¹
Visual 2	BNC (Y, PB[CB], PR[CR]) × 1* ^{1, *2}
Visual 3	DVI-D 24-pin × 1* ³
Audio	Stereo RCA × 3 (Selectable)
External Control	D-sub 9-pin × 1 (RS-232C)
Sound output	9W+9W at 6 ohm
Power Supply	AC100-240V 50/60Hz
Current Rating	7.6 A (maximum)
Power Consumption	435W (typical)
Dimensions	1222 (W) × 736 (H) × 96(D) mm 48.1 (W) × 30 (H) × 3.8 (D) inches
Weight	44.5 kg / 98.1 lbs (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Humidity	20 to 80% (no condensation)
Altitude	0 to 2800 m / 0 to 9180 feet
Storage Temperature	-10°C to 50°C / 14°F to 122°F
Humidity	10 to 90% (no condensation)
Altitude	0 to 3000 m / 0 to 9840 feet
Front Panel User Controls	Power on/off, Input source select, Volume up/down/ OSM control
Remote Control Functions	Power on/off, Input source select, OSM control, Volume up/down, Cursor (UP, DOWN, LEFT, RIGHT), Zoom up/down, Split screen buttons
OSM Functions	PICTURE (PICTURE MEMORY/CONTRAST/ BRIGHTNESS/SHARPNESS/COLOR/TINT/ NR/COLOR TEMP./WHITE BALANCE/ GAMMA/LOW TONE/SET UP LEVEL/COLOR TUNE/CINEMA MODE/PICTURE MODE), AUDIO (BASS/TREBLE/BALANCE/AUDIO INPUT1/AUDIO INPUT2/AUDIO INPUT3), IMAGE ADJUST (ASPECT MODE/V- POSITION/H-POSITION/V-HEIGHT/H- WIDTH/AUTO PICTURE/FINE PICTURE/ PICTURE ADJ.), SET UP (LANGUAGE*/BNC INPUT/D-SUB INPUT/HD SELECT/RGB SELECT/DVI SET UP/COLOR SYSTEM/BACK GROUND/GRAY LEVEL/S1/S2/DISPLAY OSM/OSM ADJ./ALL RESET), FUNCTION (POWER MGT./INPUT SKIP/SUB. P DETECT/ZOOM NAV/PICTURE FREEZE/PDP SAVER [PEAK BRIGHT / ORBITER / INVERSE/WHITE / SCREEN WIPER / SOFT FOCUS / OSM ORBITER / OSM CONTRAST]), SIGNAL INFO.



The features and specifications may be subject to change without notice.

*¹ HD/DVD/DTV input signals supported on this system

480P (60 Hz)	480I (60 Hz)
525P (60 Hz)	525I (60 Hz)
576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)
720P (60 Hz)	1035I (60 Hz)
1080I (50 Hz)	1080I (60 Hz)

*² The 5-BNC connectors are used as RGB/PC2 and HD/DVD2 input. Select one of them under "BNC INPUT".

*³ Compatible with HDCP.

Supported Signals

- 640 × 480P @ 59.94/60Hz
- 1280 × 720P @ 59.94/60Hz
- 1920 × 1080I @ 59.94/60Hz
- 720 × 480P @ 59.94/60Hz
- 1440 (720) × 480I @ 59.94/60Hz
- 1920 × 1080I @ 50Hz
- 720 × 576P @ 50Hz
- 1440 (720) × 576P @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

*English, German, French, Italian, Spanish, Swedish, Chinese, Russian

Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Self Diagnosis, Image Burn reduction tools (PEAK BRIGHT, INVERSE, WHITE, ORBITER, SCREEN WIPER), Color Temperature select (high/middle/middle low/low, user has 4 memories), Auto Picture, Input Skip, Color Tune, Low Tone (3 mode), Gamma Correction (4 mode), Plug and play (DDC1, DDC2b, RGB3: DDC2b only), Split screen operations
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Accessories	Remote control with two AAA batteries, Power cord, Manuals, Safety metal fittings, Ferrite cores, Bands, Cable clamps, HDMI-DVI cable
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Regulations	Meets EMC Directive (EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3) Meets Low Voltage Directive (EN60950-1 and EN60065, IEC60950-1 and IEC60065, SEMKO Approved) Meets AS/NZS CISPR 22:2002 Class B
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Table of Signals Supported

Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 1024 dots×768 lines signal. (Except for *2,3,4)
- When the screen mode is ANAMORPHIC, each signal is converted to a 1365 dots×768 lines signal. (Except for *3)

Computer input signals supported by this system

Model	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode		RGB select*5	DVI	Memory
				Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	ANAMORPHIC (16:9)			
	640×400	70.1	31.5	NEG	NEG	YES	YES	YES*2	YES	--	NO	4
IBM PC/AT*8 compatible computers	640×480	59.9	31.5	NEG	NEG	YES	YES	YES	YES	STILL	YES	5
		72.8	37.9	NEG	NEG	YES	YES	YES	YES	--	YES	7
		75.0	37.5	NEG	NEG	YES	YES	YES	YES	STILL	YES	8
		85.0	43.3	NEG	NEG	YES	YES	YES	YES	--	YES	9
		100.4	51.1	NEG	NEG	YES	YES	YES	YES	--	YES	41
		120.4	61.3	NEG	NEG	YES	YES	YES	YES	--	YES	42
	848×480	60.0	31.0	POS	POS	YES	YES	--	YES	WIDE2	YES	19
	852×480*1	60.0	31.7	NEG	NEG	YES	YES	--	YES	WIDE1	YES	17
	800×600	56.3	35.2	POS	POS	YES	YES	YES	YES	STILL	YES	11
		60.3	37.9	POS	POS	YES	YES	YES	YES	STILL	YES	12
		72.2	48.1	POS	POS	YES	YES	YES	YES	--	YES	13
		75.0	46.9	POS	POS	YES	YES	YES	YES	--	YES	14
		85.1	53.7	POS	POS	YES	YES	YES	YES	--	YES	15
		99.8	63.0	POS	POS	YES	YES	YES	YES	--	YES	43
	1024×768	120.0	75.7	POS	POS	YES	YES	YES	YES	--	YES	44
		60.0	48.4	NEG	NEG	YES	YES	YES*3	YES	STILL	YES	24
		70.1	56.5	NEG	NEG	YES	YES	YES*3	YES	--	YES	25
		75.0	60.0	POS	POS	YES	YES	YES*3	YES	STILL	YES	26
		85.0	68.7	POS	POS	YES	YES	YES*3	YES	--	YES	27
		100.6	80.5	NEG	NEG	YES	YES	YES*3	YES	--	YES	45
	1152×864	75.0	67.5	POS	POS	YES	YES	YES	YES	STILL	YES	51
	1280×768	56.2	45.1	POS	POS	YES	YES	--	YES	WIDE1	NO	52
		59.8	48.0	POS	NEG	YES	YES	--	YES	WIDE3	YES	80
	1280×768*9	69.8	56.0	NEG	POS	YES	YES	--	YES	WIDE1	YES	66
	1280×800*9	60.0	49.7	NEG	NEG	YES	YES	--	YES	WIDE1	YES	21
	1280×854*9	60.0	53.1	NEG	NEG	YES	YES	--	YES	WIDE2	YES	37
	1360×765	60.0	47.7	POS	POS	YES	YES	--	YES*3	WIDE1	NO	22
	1360×768	60.0	47.7	POS	POS	YES	YES	--	YES*3	WIDE1	YES	22
	1376×768	59.9	48.3	NEG	POS	YES	YES	--	YES	WIDE2	YES	53
	1280×1024	60.0	64.0	POS	POS	YES	YES	YES*4	YES	STILL	YES	29
		75.0	80.0	POS	POS	YES	YES	YES*4	YES	--	YES	30
		85.0	91.1	POS	POS	YES	YES	YES*4	YES	--	YES	40
		100.1	108.5	POS	POS	YES	YES	YES*4	YES	--	NO	47
	1680×1050*9	60.0	65.3	NEG	NEG	YES	YES	--	YES	WIDE4	YES	38
	1600×1200	60.0	75.0	POS	POS	YES	YES	YES	YES	--	YES	54
		65.0	81.3	POS	POS	YES	YES	YES	YES	--	NO	55
		70.0	87.5	POS	POS	YES	YES	YES	YES	--	NO	56
		75.0	93.8	POS	POS	YES	YES	YES	YES	--	NO	57
		85.0	106.3	POS	POS	YES	YES	YES	YES	--	NO	58
	1920×1200*9	60.0	74.6	NEG	NEG	YES	YES	--	YES	WIDE2	--	81
	1920×1200RB*9	60.0	74.0	NEG	NEG	YES	YES	--	YES	WIDE3	YES	88
Apple Macintosh*6 *8	640×480	66.7	35.0	Sync on G	Sync on G	--	--	YES	YES	--	NO	6
	832×624	74.6	49.7	Sync on G	Sync on G	--	--	YES	YES	--	NO	16
	1024×768	74.9	60.2	Sync on G	Sync on G	--	--	YES*3	YES	WIDE1	NO	28
	1152×870	75.1	68.7	Sync on G	Sync on G	--	--	YES	YES	WIDE1	NO	39
	1440×900*9	60.0	56.0	NEG	NEG	YES	YES	--	YES	--	YES	89
Work Station (EWS4800)*8	1280×1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	YES	--	YES	29
		71.2	75.1	NEG	NEG	YES	YES	YES*4	YES	--	YES	48
Work Station (HP)*8	1280×1024	72.0	78.1	--	--	--	--	YES*4	YES	--	YES	59
Work Station (SUN)*8	1152×900	66.0	61.8	C Sync	C Sync	--	--	YES	YES	--	YES	60
		76.0	71.7	C Sync	C Sync	--	--	YES	YES	--	YES	61
	1280×1024	76.1	81.1	C Sync	C Sync	--	--	YES*4	YES	--	YES	30
Work Station (SGI)	1024×768	60.0	49.7	--	--	--	--	YES*3	YES	--	YES	62
	1280×1024	60.0	63.9	--	--	--	--	YES*4	YES	--	YES	29
IDC-3000G												
PAL625P	768×576	50.0	31.4	NEG	NEG	YES	YES	YES*7	YES*7	--	NO	31
NTSC525P	640×480	59.9	31.5	NEG	NEG	YES	YES	YES*7	YES*7	MOTION	NO	32

- *1 Only when using a graphic accelerator board that is capable of displaying 852×480 .
- *2 Display only 640 lines with the screen center of the vertical orientation located at the center.
- *3 The picture is displayed in the original resolution. The picture will be compressed for other signals.
- *4 Aspect ratio is 5:4. This signal is converted to a $720 \text{ dots} \times 768 \text{ lines}$ signal.
- *5 Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
- *6 To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin) to your computer's video port.
- *7 Other screen modes (ZOOM and STADIUM) are available as well.
- *8 When viewing a moving picture at a vertical frequency greater than 65Hz, the picture may sometimes be unstable (jumpy). If this occurs, please set the refresh rate of the external equipment to 60Hz.
To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (567 interlaced lines, 50Hz refresh rate) when sync polarity is "Sync on Green", set "RGB SELECT" to "MOTION".
- *9 CVT standard compliant.

NOTE:

- While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.
- When a $1280 \text{ dots} \times 1024 \text{ lines}$ signal or $1600 \text{ dots} \times 1200 \text{ lines}$ signal is input to the monitor, the picture will be compressed.
- This monitor has a resolution of $1365 \text{ dots} \times 768 \text{ lines}$. It is recommended that the input signal should be XGA, wide XGA, or equivalent.
- With digital input some signals are not accepted.
- The sync may be disturbed when a nonstandard signal other than the aforementioned is input.
- If you are connecting a composite sync signal, use the HD terminal.

What is HDCP/HDCP technology?

HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).

If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

- "IBM PC/AT" and "XGA" are registered trademarks of International Business Machines, Inc. of the United States.
- "Apple Macintosh" is a registered trademark of Apple Computer, Inc. of the United States.

Important Information

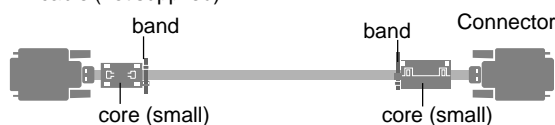
NOTE:

When you connect a computer to this monitor, use an RGB cable including the ferrite core on both ends of the cable. And regarding DVI and power cable, attach the supplied ferrite cores. If you do not do this, this monitor will not conform to mandatory CE or C-Tick standards.

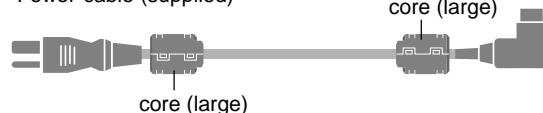
Set the ferrite cores on both ends of the DVI cable (not supplied), and both ends of the power cable (supplied). Close the lid tightly until the clamps click.

Use the band to fasten the ferrite core (supplied) to the DVI cable.

DVI cable (not supplied)



Power cable (supplied)



Operation Manual

(Enhanced split screen Model)

For the specifications of your plasma monitor, refer to "Model Information".

ENGLISH

DEUTSCH

FRANÇAIS

ESPAÑOL


ITALIANO

РУССКИЙ

Important Information


Precautions

Please read this manual carefully before using your plasma monitor and keep the manual handy for future reference.



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS, UNLESS THE PRONGS CAN BE FULLY INSERTED. REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warnings and Safety Precaution

This plasma monitor is designed and manufactured to provide long, trouble-free service. No maintenance other than cleaning is required. Please see the section "Plasma monitor cleaning procedure" on the next page.

The plasma display panel consists of fine picture elements (cells) with more than 99.99 percent active cells. There may be some cells that do not produce light or remain lit.

For operating safety and to avoid damage to the unit, read carefully and observe the following instructions.

To avoid shock and fire hazards:

1. Provide adequate space for ventilation to avoid internal heat build-up. Do not cover rear vents or install the unit in a closed cabinet or shelves.
If you install the unit in an enclosure, make sure there is adequate space at the top of the unit to allow hot air to rise and escape. If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location, and wait for 60 minutes to cool the monitor. If the problem persists, contact your dealer for service.
2. Do not use this unit's polarized plug with extension cords or outlets unless the prongs can be completely inserted.
3. Do not expose the unit to water or moisture.
4. Avoid damage to the power cord, and do not attempt to modify the power cord.
5. Unplug the power cord during electrical storms or if the unit will not be used over a long period.
6. Do not open the cabinet which has potentially dangerous high voltage components inside. If the unit is damaged in this way the warranty will be void. Moreover, there is a serious risk of electric shock.

7. Do not attempt to service or repair the unit. The manufacturer is not liable for any bodily harm or damage caused if unqualified persons attempt service or open the back cover. Refer all service to authorized Service Centers.

To avoid damage and prolong operating life:

1. Use only with 100-240V 50/60Hz AC power supply. Continued operation at line voltages greater than 100-240 Volts AC will shorten the life of the unit, and might even cause a fire hazard.
2. Handle the unit carefully when installing it and do not drop.
3. Set the unit away from heat, excessive dust, and direct sunlight.
4. Protect the inside of the unit from liquids and small metal objects.
In case of accident, unplug the power cord and have it serviced by an authorized Service Center.
5. Do not hit or scratch the panel surface as this causes flaws on the surface of the screen.
6. For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.
7. As is the case with any phosphor-based display (like a CRT monitor, for example) light output will gradually decrease over the life of a Plasma Display Panel.
8. To avoid sulfurization it is strongly recommended not to place the unit in a dressing room in a public bath or hot spring bath.
9. Do not use in a moving vehicle, as the unit could drop or topple over and cause injuries.
10. Do not place the unit on its side, upside-down or with the screen facing up or down, to avoid combustion or electric shock.

Plasma monitor cleaning procedure:

1. Use a soft dry cloth to clean the front panel and bezel area. Never use solvents such as alcohol or thinner to clean these surfaces.
2. Clean plasma ventilation areas with a vacuum cleaner with a soft brush nozzle attachment.
3. To ensure proper ventilation, cleaning of the ventilation areas must be carried out monthly. More frequent cleaning may be necessary depending on the environment in which the plasma monitor is installed.

Recommendations to avoid or minimize phosphor burn-in:

Like all phosphor-based display devices and all other gas plasma displays, plasma monitors can be susceptible to phosphor burn under certain circumstances. Certain operating conditions, such as the continuous display of a static image over a prolonged period of time, can result in phosphor burn if proper precautions are not taken. To protect your investment in this plasma monitor, please adhere to the following guidelines and recommendations for minimizing the occurrence of image burn:

- * Always enable and use your computer's screen saver function during use with a computer input source.
- * Display a moving image whenever possible.
- * Change the position of the menu display from time to time.
- * Always power down the monitor when you are finished using it.

If the plasma monitor is in long term use or continuous operation take the following measures to reduce the likelihood of phosphor burn:

- * Lower the Brightness and Contrast levels as much as possible without impairing image readability.
- * Display an image with many colors and color gradations (i.e. photographic or photo-realistic images).
- * Create image content with minimal contrast between light and dark areas, for example white characters on black backgrounds. Use complementary or pastel color whenever possible.
- * Avoid displaying images with few colors and distinct, sharply defined borders between colors.

* Note: Burn-in is not covered by the warranty.

Contact your dealer for other recommended procedures that will best suit your particular application needs.

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Contents of the Package

- ☐ Plasma monitor
- ☐ Power cord
- ☐ Remote control with two AAA Batteries
- ☐ Manuals (Model Information and Operation)
- ☐ Safety metal fittings*
- ☐ Ferrite cores, bands
- ☐ Cable clamps
- ☐ HDMI-DVI cable

* Contents will differ according to the model.

* These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws (see page E-4).

Options

- Wall mount unit
- Ceiling mount unit
- Tilt mount unit
- Stand
- Attachable speakers

Installation

You can attach your optional mounts or stand to the plasma monitor in one of the following two ways:

- * While it is upright. (See Drawing A)
- * As it is laid down with the screen face down (See Drawing B). Lay the protective sheet, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.
- * Do not touch or hold the screen face when carrying the unit.

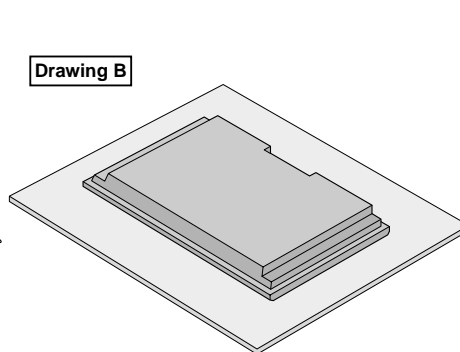
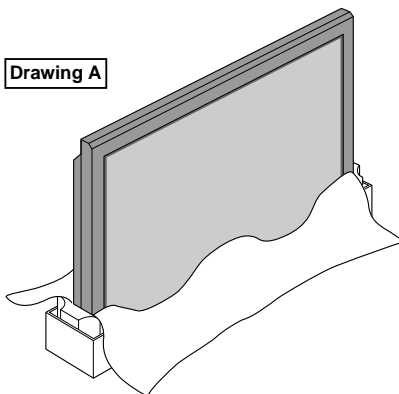
• **This device cannot be installed on its own. Be sure to use a stand or original mounting unit. (Wall mount unit, Stand, etc.)**

* See page E-3.

• **For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.**

Failure to follow correct mounting procedures could result in damage to the equipment or injury to the installer.

Product warranty does not cover damage caused by improper installation.

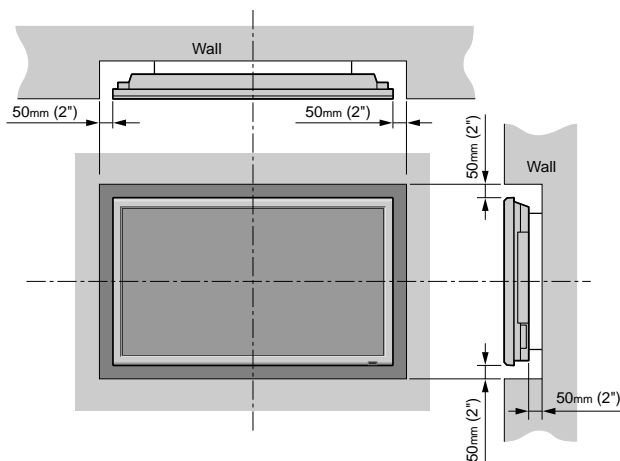


When installing or carrying, use the handles attached to the upper back of the display.



Ventilation Requirements for enclosure mounting

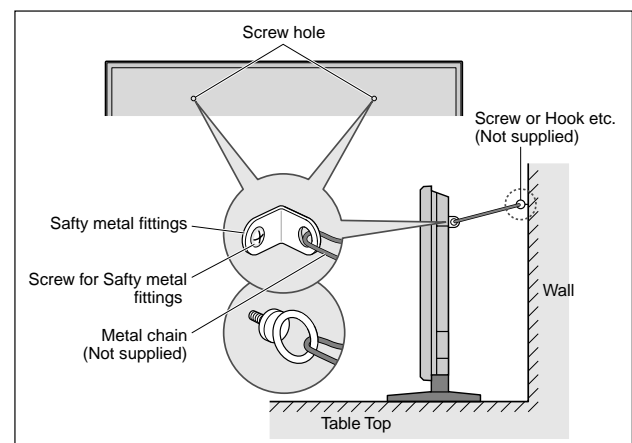
To allow heat to disperse, leave space between surrounding objects as shown on the diagram below when installing.



How to use the safety metal fittings and the screws for safety metal fittings

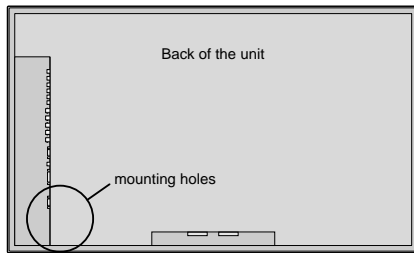
These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws.

* Safety metal fittings will differ according to the model.

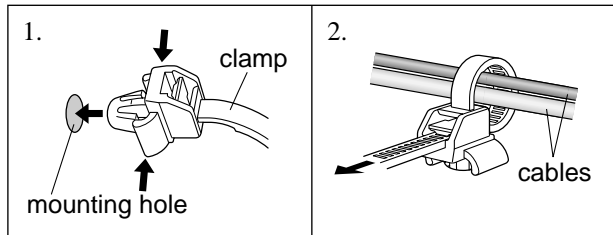


Cable Management

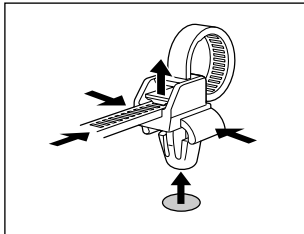
Using the cable-clamps provided with the plasma display, bundle at the back of the unit the signal and audio cables connected to the display.



To attach



To detach

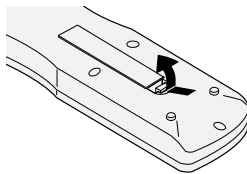


How to use the remote control

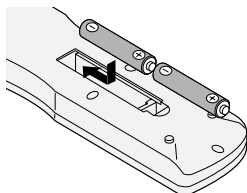
Battery Installation and Replacement

Insert the 2 “AAA” batteries, making sure to set them in with the proper polarity.

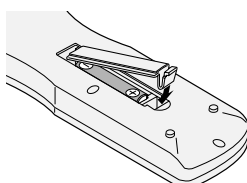
1. Press and open the cover.



2. Align the batteries according to the (+) and (–) indication inside the case.

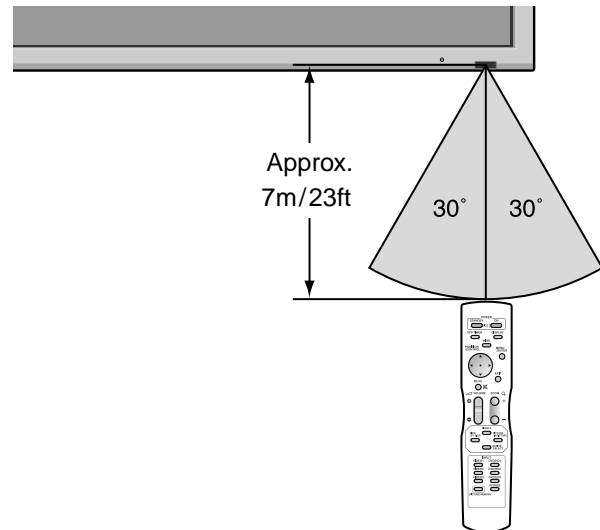


3. Replace the cover.



Operating Range

- * Use the remote control within a distance of about 7 m/ 23ft. from the front of the monitor’s remote control sensor and at horizontal and vertical angles of up to approximately 30°.
- * The remote control operation may not function if the monitor’s remote control sensor is exposed to direct sunlight or strong artificial light, or if there is an obstacle between the sensor and the remote control.

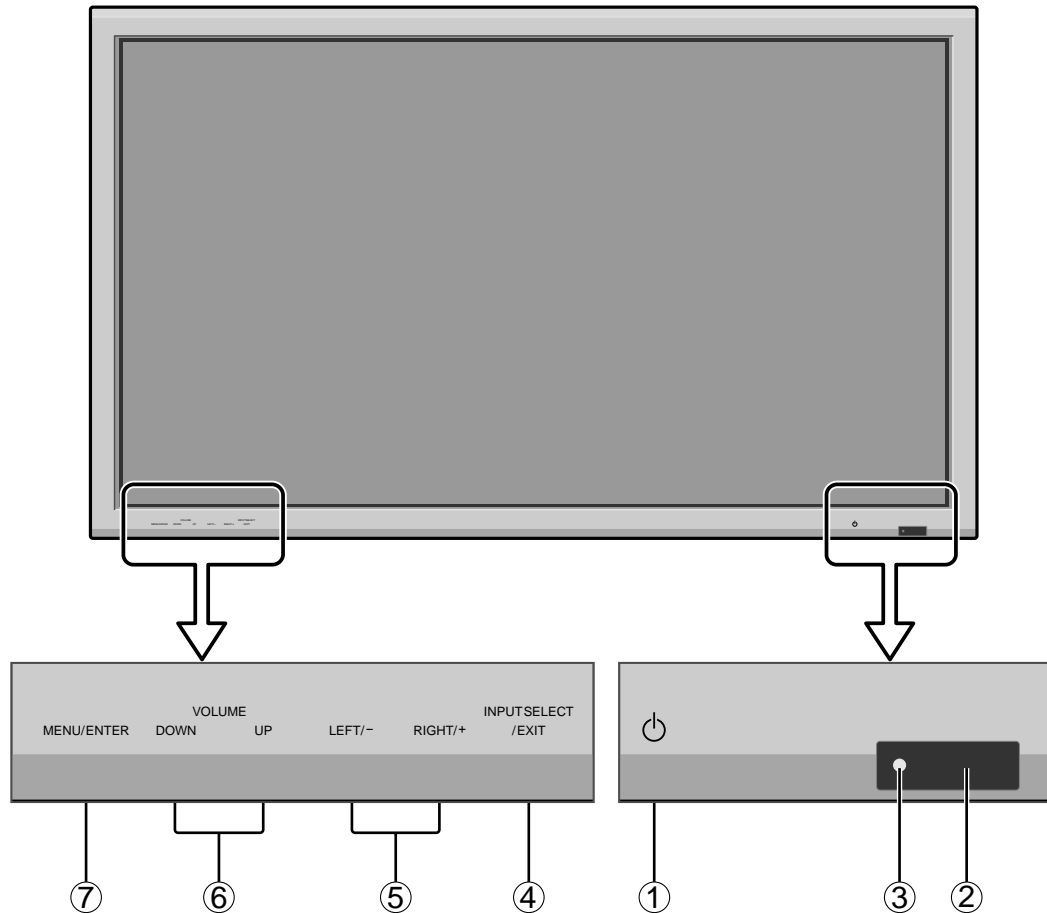


Handling the remote control

- Do not drop or mishandle the remote control.
- Do not get the remote control wet. If the remote control gets wet, wipe it dry immediately.
- Avoid heat and humidity.
- When not using the remote control for a long period, remove the batteries.
- Do not use new and old batteries together, or use different types together.
- Do not take apart the batteries, heat them, or throw them into a fire.

Part Names and Function

Front View



- ① **Power**
Turns the monitor's power on and off.
- ② **Remote sensor window**
Receives the signals from the remote control.
- ③ **POWER/STANDBY indicator**
When the power is on Lights green.
When the power is in the standby mode ... Lights red.
- ④ **INPUT SELECT / EXIT**
Switches the input.
The available inputs depend on the setting of "BNC INPUT", "D-SUB INPUT", "RGB SELECT" and "DVI SET UP".
Functions as the EXIT buttons in the On-Screen Menu (OSM) mode.
- ⑤ **LEFT/~ and RIGHT/+**
Enlarges or reduces the image. Functions as the CURSOR (◀/▶) buttons in the On-Screen Menu (OSM) mode.
- ⑥ **VOLUME DOWN and UP**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Menu (OSM) mode.
- ⑦ **MENU/ENTER**
Sets the On-Screen Menu (OSM) mode and displays the main menu.

WARNING

The Power on/off switch does not disconnect the plasma display completely from the supply mains.

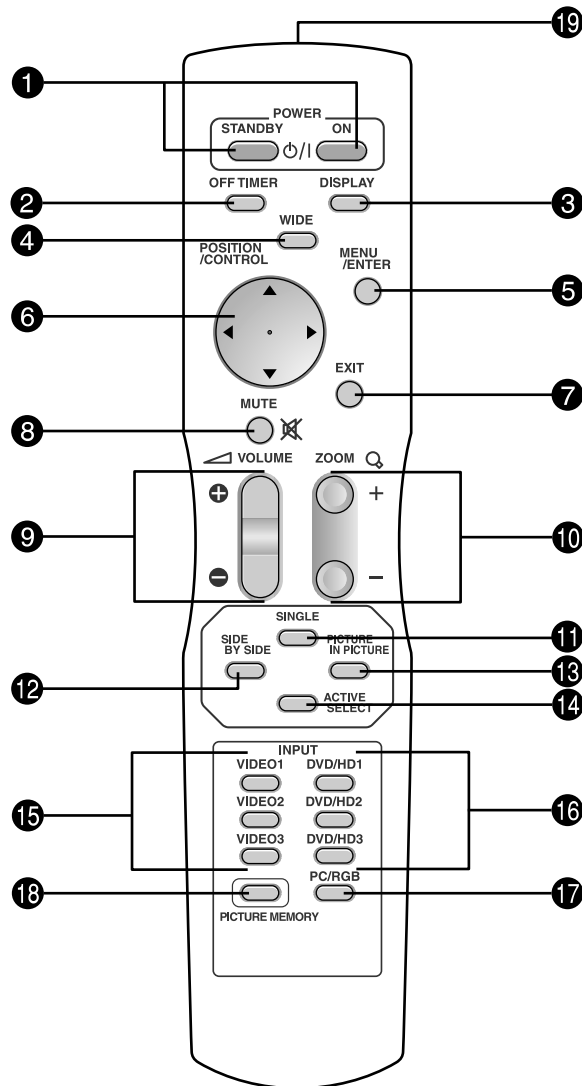
Note: This plasma monitor has the capacity to display images when connected to European DVD players with a SCART output signal, which is RGB with composite sync.

Your dealer can supply a special SCART cable, which will enable you to use the RGB with composite sync signal.

To obtain the special cable as well as for further information, please contact your dealer.

Please refer to page E-21 for selection of the correct mode in the on-screen manager.

Remote Control



- 1 POWER ON/STANDBY**
Switches the power on/standby.
(This does not operate when POWER/STANDBY indicator of the main unit is off.)
- 2 OFF TIMER**
Activates the off timer for the unit.
- 3 DISPLAY**
Displays the source settings on the screen.
- 4 WIDE**
Automatically detects the signal and sets the aspect ratio.
Wide button is not active for all signals.
- 5 MENU/ENTER**
Press this button to access the OSM controls.
Press this button during the display of the main menu to go to the sub menu.
- 6 CURSOR (▲ / ▼ / ◀ / ▶)**
Use these buttons to select items or settings and to adjust settings or switch the display patterns.
- 7 EXIT**
Press this button to exit the OSM controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.

- 8 MUTE**
Mutes the audio.
- 9 VOLUME (+ / -)**
Adjusts the audio volume.
- 10 ZOOM (+ / -)**
Enlarges or reduces the image.
- 11 SINGLE**
Cancels the split screen mode.
- 12 SIDE BY SIDE**
Press this button to show a couple of pictures in the side-by-side mode.
- 13 PICTURE IN PICTURE**
Press this button to show a couple of pictures in the picture-in-picture mode.
- 14 ACTIVE SELECT**
Press this button to make the desired picture activate during split screen mode.
When the PICTURE FREEZE function is operating, this button can be used to display still images on the sub screen.
- 15 VIDEO1, 2, 3**
Press this button to select VIDEO as the source.
VIDEO can also be selected using the INPUT SELECT button on the monitor.
- 16 DVD/HD1, 2, 3**
Press this button to select DVD/HD as the source.
DVD/HD can also be selected using the INPUT SELECT button on the monitor.
- 17 PC/RGB**
Press this button to select PC/RGB as the source.
PC/RGB can also be selected using the INPUT SELECT button on the monitor.
- 18 PICTURE MEMORY**
Switches sequentially between picture memory settings 1 to 6.
- 19 Remote control signal transmitter**
Transmits the remote control signals.

Basic Operations

POWER

To turn the unit ON and OFF:

1. Plug the power cord into an active AC power outlet.
2. Press the Power button (on the unit).
The monitor's POWER/STANDBY indicator turns red and the standby mode is set.
3. Press the POWER ON button (on the remote control) to turn on the unit.
The monitor's POWER/STANDBY indicator will light up (green) when the unit is on.
4. Press the POWER STANDBY button (on the remote control) or the Power button (on the unit) to turn off the unit.
The monitor's POWER/STANDBY indicator turns red and the standby mode is set (only when turning off the unit with the remote control).

VOLUME

To adjust the sound volume:

1. Press and hold the VOLUME \oplus button (on the remote control or the unit) to increase to the desired level.
2. Press and hold the VOLUME \ominus button (on the remote control or the unit) to decrease to the desired level.

MUTE

To mute the audio:

Press the MUTE button on the remote control to mute the audio; press again to restore.


DISPLAY

To check the settings:

1. The screen changes each time the DISPLAY button is pressed.
2. If the button is not pressed for approximately three seconds, the menu turns off.

DIGITAL ZOOM

Digital zoom specifies the picture position and enlarges the picture.

1. (Be sure ZOOM NAV is off.)
Press the ZOOM (+ or -) button to display magnifying glass. ()

To change the size of the picture:

Press the ZOOM+ button and enlarge the picture.
A press of the ZOOM- button will reduce the picture and return it to its original size.

To change the picture position:

Select the position with the \blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright buttons.

2. Press the EXIT button to delete the pointer.

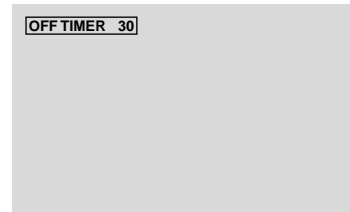
OFF TIMER

To set the off timer:

The off timer can be set to turn the power off after 30, 60, 90 or 120 minutes.

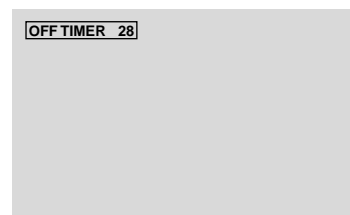
1. Press the OFF TIMER button to start the timer at 30 minutes.
2. Press the OFF TIMER button to the desired time.
3. The timer starts when the menu turns off.

→ 30 → 60 → 90 → 120 → 0



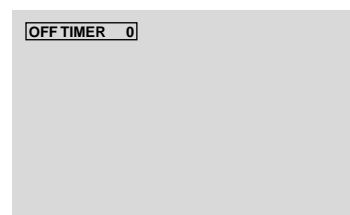
To check the remaining time:

1. Once the off timer has been set, press the OFF TIMER button once.
2. The remaining time is displayed, then turns off after a few seconds.
3. When five minutes remain the remaining time appears until it reaches zero.



To cancel the off timer:

1. Press the OFF TIMER button twice in a row.
2. The off timer is canceled.



Note:

*After the power is turned off with the off timer ...
A slight current is still supplied to the monitor. When you are leaving the room or do not plan to use the system for a long period of time, turn off the power of the monitor.*

WIDE Operations

Wide Screen Operation (manual)

With this function, you can select one of six screen sizes.

When viewing videos or digital video discs

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

The screen size switches as follows:

→ NORMAL → ANAMORPHIC → STADIUM → ZOOM → 2.35:1 → 14:9 →

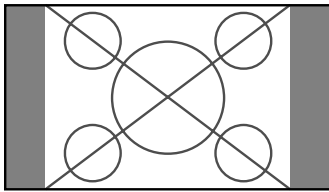
When a 720P or 1080I signal is input:

ANAMORPHIC ↔ 2.35:1

When displaying enhanced split screen:

NORMAL ↔ ANAMORPHIC

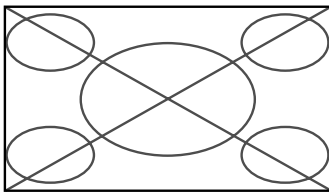
NORMAL size screen (4:3)



The normal size screen is displayed.

- * The picture has the same size as video pictures with a 4 : 3 aspect ratio.

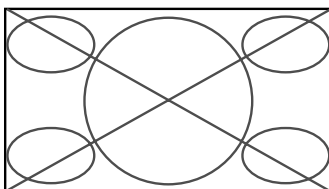
ANAMORPHIC size screen



The image is expanded in the horizontal direction.

- * Images compressed in the horizontal direction ("squeezed images") are expanded in the horizontal direction and displayed on the entire screen with correct linearity. (Normal images are expanded in the horizontal direction.)

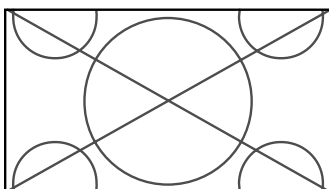
STADIUM size screen



The picture is expanded in the horizontal and vertical directions at different ratios.

- * Use this for watching normal video programs (4:3) with a wide screen.

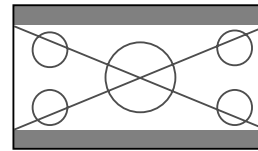
ZOOM size screen



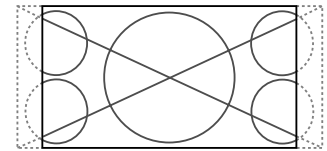
The picture is expanded in the horizontal and vertical direction, maintaining the original proportions.

- * Use this for theater size (wide) movies, etc.

2.35:1 size screen



Original image



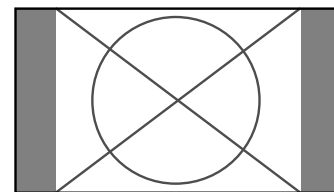
Information is lost on both sides.

The squeezed film image is expanded to fulfill the entire screen at a ratio of 2.35:1. Black bands do not appear at the top and bottom but information is lost on the left and right margins.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P, 720P, 1080I) or RGB (525P or 625P signal from a scan converter).

- * If black bands appear on the top and bottom in the full size screen, select the 2.35:1 size screen to avoid phosphor burn-in.

14:9 size screen



The image is displayed at a 14:9 aspect ratio.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P) or RGB (525P or 625P signal from a scan converter).

Note:

Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

Wide Screen Operation with Computer Signals

Switch to the wide screen mode to expand the 4 : 3 image to fill the entire screen.

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

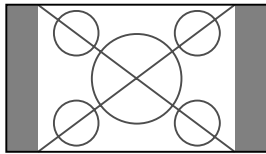
The screen size switches as follows:

→ **NORMAL** → **ANAMORPHIC** → **ZOOM** →

When displaying enhanced split screen:

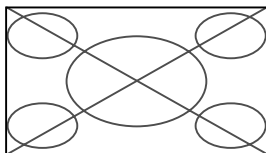
NORMAL ↔ **ANAMORPHIC**

NORMAL size screen (4:3 or SXGA 5:4)



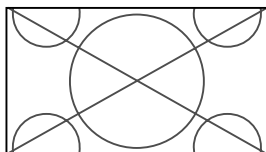
The picture has the same size as the normal computer image.

ANAMORPHIC size screen



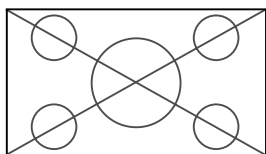
The image is expanded in the horizontal direction.

ZOOM size screen



When wide signals are input.

ANAMORPHIC size screen



Information

■ Supported resolution

See page E-2 of Model Information for details on the display output of the various VESA signal standards supported by the monitor.

■ **When 852 (848) dot × 480 line wide VGA* signals with a vertical frequency of 60 Hz and horizontal frequency of 31.7 (31.0) kHz are input**

Select an appropriate setting for RGB SELECT mode referring to the "Table of Signals Supported" on page E-2 of Model Information.

* "VGA", "SVGA" and "SXGA" are registered trademarks of IBM, Inc. of the United States.

Note:

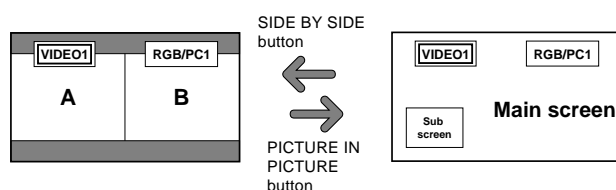
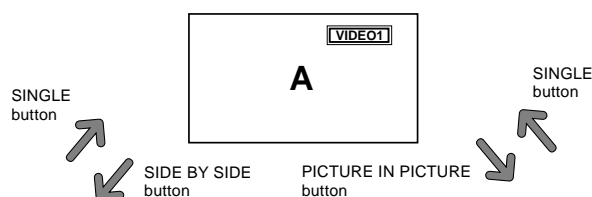
Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

SPLIT SCREEN Operations

Showing a couple of pictures on the screen at the same time

* An RGB-input picture may not be displayed in these modes, depending on the input signal specifications.

1. Press the button to select a screen mode from among single mode, side-by-side, and picture-in-picture.



Note:

Picture A and B on the above screen are not always of the same height.

Information

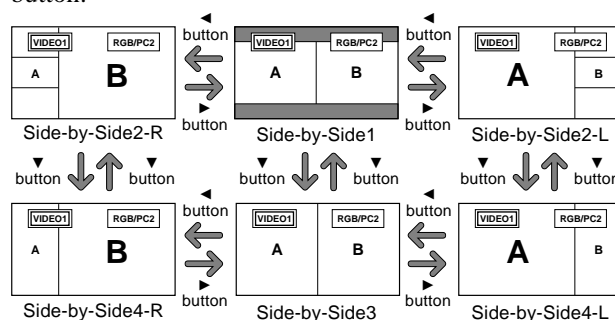
Split screen operations may not function depending on the combination of input signals. In the table below, "○" means Yes, "×" means No.

	Pictures displayed on the right/main screen (Select1)							
	VIDEO1	VIDEO2	VIDEO3	HD/DVD1	HD/DVD2 RGB2	RGB/PC1	HD/DVD3 RGB3	SCART1-3
Pictures displayed on the left/sub screen (Select2)								
VIDEO1	×	×	×	○	○	○	○	×
VIDEO2	×	×	×	○	○	○	○	×
VIDEO3	×	×	×	○	○	○	○	×
HD/DVD1	○	○	○	×	○	○	○	○
HD/DVD2	○	○	○	○	×	○	○	1.2:×
RGB2	○	○	○	○	○	×	○	3:○
RGB/PC1	○	○	○	○	○	×	○	1.2:○
HD/DVD3	○	○	○	○	○	○	×	3:×
RGB3	○	○	○	○	○	○	×	○
SCART1-3	×	×	×	○	1.2:×	1.2:○	○	×
					3:○	3:×		

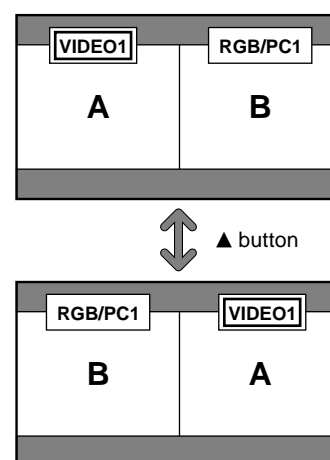
■ Split screen operations may not function depending on the type of the RGB signals.

Operations in the Side-by-side mode

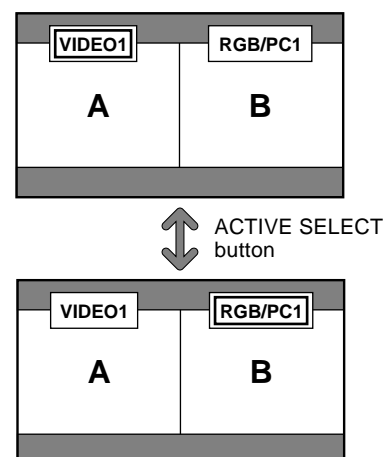
To change the picture size, press the cursor ◀▶ or ▼ button.



To swap the picture on the right and the left, press the cursor ▲ button.

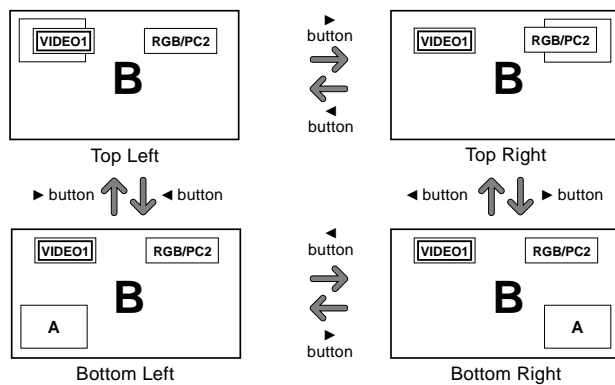


To make the desired picture active, press the ACTIVE SELECT button.

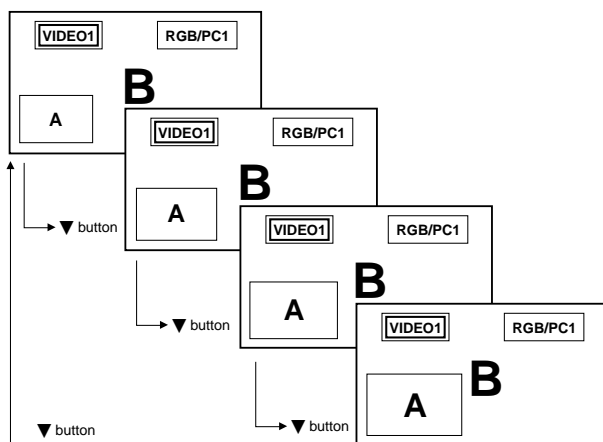


Operations in the Picture-in-picture mode

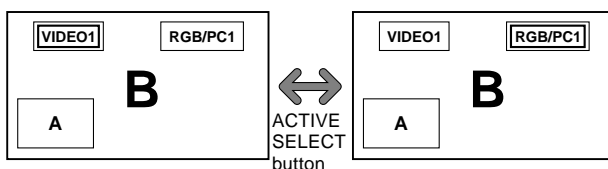
To move the position of the sub screen, press the cursor ◀ or ▶ button.



To change the size of the sub screen, press the ▼ button.



To make the desired picture active, press the ACTIVE SELECT button.



Selecting the input signals to be displayed

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Press the PC/RGB, VIDEO1, 2, 3, or DVD/HD1, 2, 3 button to change the selection of the input signal. The INPUT SELECT button on the monitor can also be used to change the selection.

Zooming up pictures

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Use the ZOOM (+ or -) button to enlarge the picture. For details, see "DIGITAL ZOOM" on page E-9.

Adjusting the OSM controls

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Press the MENU/ENTER button to display the MAIN MENU.
3. Adjust the setting to your preference. For details, see "OSM (On Screen Menu) Controls" on page E-14.

Note:

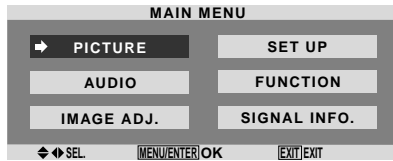
During enhanced split screen, some functions of OSM controls are not available.

OSM (On Screen Menu) Controls

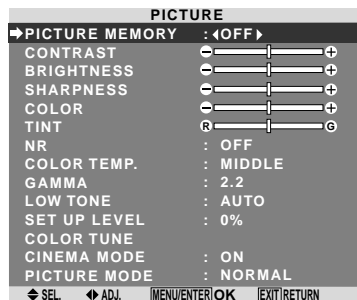
Menu Operations

The following describes how to use the menus and the selected items.

1. Press the MENU/ENTER button on the remote control to display the MAIN MENU.



2. Press the cursor buttons ▲ ▼ on the remote control to highlight the menu you wish to enter.
3. Press the MENU/ENTER button on the remote control to select a sub menu or item.




4. Adjust the level or change the setting of the selected item by using the cursor buttons ◀ ▶ on the remote control.



5. The adjustments or the settings that are stored in memory. The change is stored until you change it again.
 6. Repeat steps 2 – 5 to adjust an additional item, or press the EXIT button on the remote control to return to the main menu.
- * When adjusting using the bar at the bottom of the screen, press the ◀ or ▶ button within 5 seconds. If not, the current setting is set and the previous screen appears.

Note: The main menu disappears by pressing the EXIT button.

Menu Tree

 : Shaded areas indicate the default value.

— ◀ → + : Press the ◀ or ▶ button to adjust. The default value is at the center.

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
PICTURE	PICTURE MEMORY	OFF/MEMORY1-6			NO	E-17
	CONTRAST	— ◀ → + 0◀52→72			YES	E-17
	BRIGHTNESS	— ◀ → + 0◀32→64			YES	E-17
	SHARPNESS	— ◀ → + 0◀16→32			YES	E-17
	COLOR	— ◀ → + 0◀32→64			YES	E-17
	TINT	R◀→G 0◀32→64			YES	E-17
	NR	OFF/NR-1/NR-2/NR-3			YES	E-17
	COLOR TEMP.	LOW/MIDDLE LOW/MIDDLE/HIGH			YES	E-18
	WHITE BALANCE	GAIN RED	— ◀ → + 0◀→70		YES	E-18
		GAIN GREEN	— ◀ → + 0◀→70		YES	E-18
		GAIN BLUE	— ◀ → + 0◀→70		YES	E-18
		BIAS RED	— ◀ → + 0◀→70		YES	E-18
		BIAS GREEN	— ◀ → + 0◀→70		YES	E-18
		BIAS BLUE	— ◀ → + 0◀→70		YES	E-18
		RESET	OFF◀→ON		YES	E-18
	GAMMA	2.1◀2.2→2.3→2.4			YES	E-18
	LOW TONE	AUTO◀→1◀→3			YES	E-18
	SET UP LEVEL	0%◀→3.75%◀→7.5%			YES	E-19
	COLOR TUNE	RED	Y◀→M 0◀→64		YES	E-19
		GREEN	C◀→Y 0◀→64		YES	E-19
		BLUE	M◀→C 0◀→64		YES	E-19
		YELLOW	G◀→R 0◀→64		YES	E-19
		MAGENTA	R◀→B 0◀→64		YES	E-19
		CYAN	B◀→G 0◀→64		YES	E-19
		RESET	OFF◀→ON		YES	E-19
	CINEMA MODE	ON◀→OFF			YES	E-19
	PICTURE MODE	DEFAULT/THEATER1/THEATER2/NORMAL/BRIGHT			YES	E-19

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
AUDIO	BASS	— ◀ → + 0◀13→26			YES	E-20
	TREBLE	— ◀ → + 0◀13→26			YES	E-20
	BALANCE	L◀→R -22◀0→+22			YES	E-20
	AUDIO INPUT1	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-20
	AUDIO INPUT2	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-20
	AUDIO INPUT3	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-20

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
IMAGE ADJUST	ASPECT MODE	ZOOM/NORMAL/ANAMORPHIC/STADIUM/14:9/2.35:1			NO	E-20
	V-POSITION	— ◀ → + -64◀0→+64			YES	E-20
	H-POSITION	— ◀ → + -128◀0→+127			YES	E-20
	V-HEIGHT	— ◀ → + 0◀→64			YES	E-20
	H-WIDTH	— ◀ → + 0◀→64			YES	E-20
	AUTO PICTURE	ON◀→OFF*2			NO	E-20
	FINE PICTURE*1	— ◀ → + *2 0◀→64			YES	E-20
	PICTURE ADJ.*1	— ◀ → + *2 0◀→128			YES	E-20

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
SET UP	LANGUAGE	ENGLISH/DEUTSCH/FRANÇAIS/ESPAÑOL/ITALIANO/SVENSKA/中文/РУССКИЙ			NO	E-21
	BNC INPUT	RGB◀→COMPONENT◀→SCART1◀→SCART2			YES	E-21
	D-SUB INPUT	RGB◀→SCART3			YES	E-21
	HD SELECT	1080I/1035I/540P			NO	E-21
	RGB SELECT	AUTO/STILL/MOTION/WIDE1/WIDE2/WIDE3/DTV			YES	E-21
	DVI SET UP	PLUG/PLAY	PC◀→STB/DVD		NO	E-22
		BLACK LEVEL	LOW◀→HIGH		NO	E-22
		COLOR SYSTEM	AUTO/PAL/PAL-M/PAL-N/PAL 60/SECAM/4.43 NTSC/3.58NTSC		NO	E-22
	BACK GROUND	BLACK/GRAY			YES	E-22
	GRAY LEVEL	0◀→3◀→15			YES	E-23
	S1/S2	AUTO◀→OFF			YES	E-23
	DISPLAY OSM	ON◀→OFF			YES	E-23
	OSM ADJ.	TOP LEFT◀→TOP CENTER◀→TOP RIGHT◀→BTM LEFT◀→BTM CENTER◀→BTM RIGHT			YES	E-23
	ALL RESET	ON◀→OFF			—	E-23

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
FUNCTION	POWER MGT.	ON↔OFF			YES	E-24
	INPUT SKIP	ON↔OFF			YES	E-24
	SUB. P DETECT	AUTO↔OFF			YES	E-24
	ZOOM NAV	OFF↔S BY S↔BTM LEFT↔BTM RIGHT↔TOP RIGHT↔TOP LEFT			YES	E-25
	PICTURE FREEZE	OFF↔S BY S1↔S BY S2↔BTM LEFT↔BTM RIGHT↔TOP RIGHT↔TOP LEFT			YES	E-25
	PDP SAVER	MANUAL/AUTO			YES	E-25
	PEAK BRIGHT	100%/75%/50%/25%			YES	E-26
	ORBITER	OFF/AUTO1/AUTO2			YES	E-26
	INVERSE/WHITE	OFF/INVERSE/WHITE			YES	E-26
	SCREEN WIPER	ON/OFF			YES	E-26
	SOFT FOCUS	OFF/LEVEL1-4			YES	E-27
	OSM ORBITER	ON/OFF			YES	E-27
	OSM CONTRAST	LOW/NORMAL			YES	E-27

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
SIGNAL INFO.					—	E-27

*1 Only when AUTO PICTURE is OFF.

*2 RGB/PC only

Information

■ Restoring the factory default settings

Select “ALL RESET” under the SET UP menu. Note that this also restores other settings to the factory defaults.

Picture Settings Menu

Storing picture settings

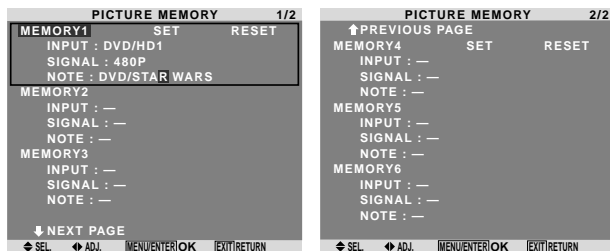
This function allows you to store in memory the current input signal and PICTURE menu settings and to recall these settings when necessary.

There are six picture memories, and notes of up to 15 characters can be added to each.

Example: Storing picture settings at MEMORY1

On “PICTURE MEMORY” of “PICTURE” menu, select “MEMORY1”, then press the MENU/ENTER button.

The “PICTURE MEMORY” screen appears.



Information

■ PICTURE MEMORY Settings

OFF: Picture memory not used.

MEMORY1 to 6: Picture memory with the specified number used. Maximum memories are 6, not depending on inputs.

■ Setting the memory

- Use the ▲ and ▼ button to select the desired memory place, MEMORY1 to MEMORY6.
- Use the ◀ and ▶ buttons to select “SET”, then press the MENU/ENTER button.
- If necessary, input a note.

■ Resetting the memory

Use the ▲ and ▼ button to select the desired memory place, MEMORY1 to MEMORY6, then use the ◀ and ▶ buttons to select “RESET”, and finally press the MENU/ENTER button.

The memory is cleared, and “—” is displayed in the “INPUT”, “SIGNAL” and “NOTE” columns.

■ Inputting notes

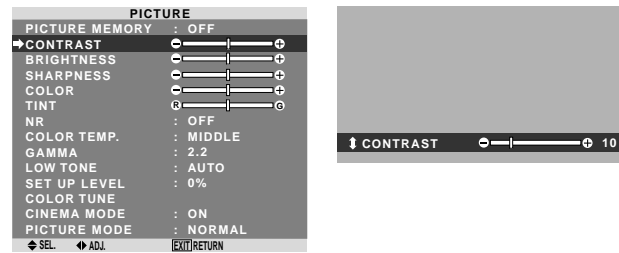
- Use the ◀ and ▶ buttons to select “NOTE”, then press the MENU/ENTER button.
- Input the note.
 - Use the ▲ and ▼ button to select the character.
 - Use the ◀ and ▶ buttons to move the cursor.
 - Use the EXIT button to delete the character at the cursor position.
- When you have finished inputting the note, press the MENU/ENTER button.

Adjusting the picture

The contrast, brightness, sharpness, color and tint can be adjusted as desired.

Example: Adjusting the contrast

On “CONTRAST” of “PICTURE” menu, adjust the contrast.



Note: If “CAN NOT ADJUST” appears ...

When trying to enter the PICTURE submenu, make sure PICTURE MODE is not set to DEFAULT.

Information

■ Picture adjustment screen

CONTRAST: Changes the picture’s white level.

BRIGHTNESS: Changes the picture’s black level.

SHARPNESS: Changes the picture’s sharpness.

Adjusts picture detail of VIDEO display.

COLOR: Changes the color density.

TINT: Changes the picture’s tint. Adjust for natural colored skin, background, etc.

■ Adjusting the computer image

Only the contrast and brightness can be adjusted when a computer signal is connected.

■ Restoring the factory default settings

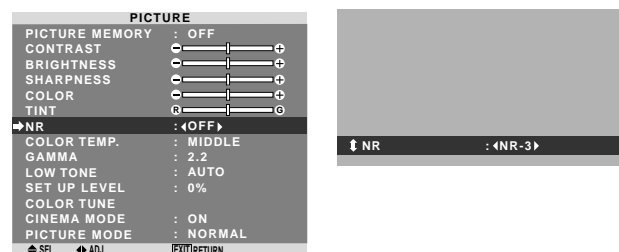
Select “DEFAULT” under the “PICTURE MODE” settings.

Reducing noise in the picture

Use these settings if the picture has noise due to poor reception or when playing video tapes on which the picture quality is poor.

Example: Setting “NR-3”

On “NR” of “PICTURE” menu, select “NR-3”.



Information

■ NR

* “NR” stands for Noise Reduction.

* This function reduces noise in the picture.

■ Types of noise reduction

There are three types of noise reduction. Each has a different level of noise reduction.

The effect becomes stronger as the number increases (in the order NR-1 → NR-2 → NR-3).

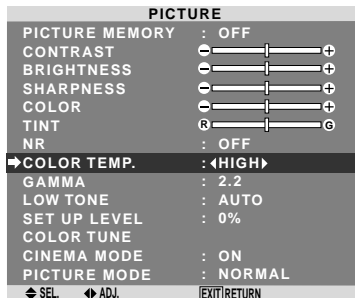
OFF: Turns the noise reduction function off.

Setting the color temperature

Use this procedure to set color tone produced by the plasma display.

Example: Setting “HIGH”

On “COLOR TEMP.” of “PICTURE” menu, select “HIGH”.



Information

■ Setting the color temperature

LOW: Redder

MIDDLE LOW: Slightly red

MIDDLE: Standard (slightly bluer)

HIGH: Bluer

Adjusting the color to the desired level

Use this procedure to adjust the white balance for each color temperature to achieve the desired color quality.

Example: Adjusting the “GAIN RED” of “HIGH” color temperature

On "COLOR TEMP." of "PICTURE" menu, select "HIGH", then press the MENU/ENTER button.

The “WHITE BALANCE” screen appears.

On “GAIN RED”, adjust the white balance.



Information

■ Adjusting the white balance

GAIN R/G/B: White balance adjustment for white level

BIAS R/G/B: White balance adjustment for black level

RESET: Resets settings to the factory default values.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

■ Restoring the factory default settings

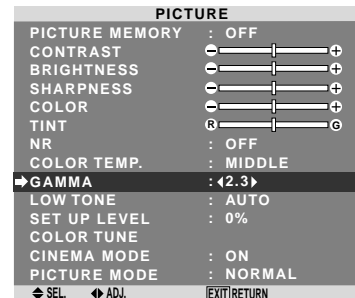
Select “RESET” under the WHITE BALANCE menu.

Changing the Gamma Curve

This feature adjusts the brightness of the midtone areas while keeping shadows and highlights unchanged.

Example: Setting “2.3”

On “GAMMA” of “PICTURE” menu, select “2.3”.



Information

■ GAMMA settings

The picture becomes darker as the number increases (in the sequence of 2.1, 2.2, 2.3, 2.4).

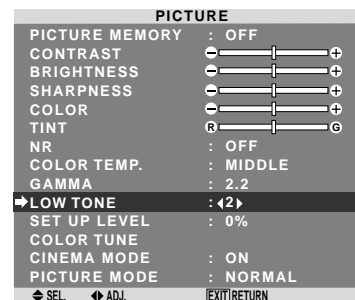
* These values are approximate.

Making the Low Tone adjustments

This feature allows more detailed tone to be reproduced especially in the dark area.

Example: Setting “2”

On “LOW TONE” of “PICTURE” menu, select “2”.



Information

■ LOW TONE settings

AUTO: Will automatically appraise the picture and make adjustments.

1: Will apply the dither method suitable for still pictures.

2: Will apply the dither method suitable for motion pictures.

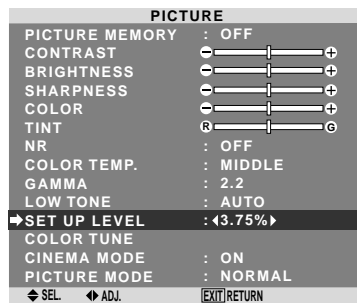
3: Will apply the error diffusion method.

Adjusting the pedestal level (black level)

This feature adjusts the video black level in a video image.

Example: Setting “3.75%”

On “SET UP LEVEL” of “PICTURE” menu, select “3.75%”.



Information

■ SET UP LEVEL settings

0%: Normal status

3.75%: 3.5% lower than normal

7.5%: 7.5% lower than normal

Adjusting the colors

Use this procedure to adjust hue and color density for red, green, blue, yellow, magenta and cyan.

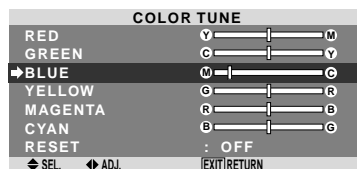
You can accentuate the green color of trees, the blue of the sky, etc.

Example: Adjusting the color tune for blue

On “PICTURE” menu, select “COLOR TUNE”, then press the MENU/ENTER button.

The “COLOR TUNE” screen appears.

On “BLUE” of “COLOR TUNE”, adjust the color tune.



Information

■ COLOR TUNE settings

RED: Makes red's adjustment

GREEN: Makes green's adjustment

BLUE: Makes blue's adjustment

YELLOW: Makes yellow's adjustment

MAGENTA: Makes magenta's adjustment

CYAN: Makes cyan's adjustment

RESET: Resets settings to the factory default value.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

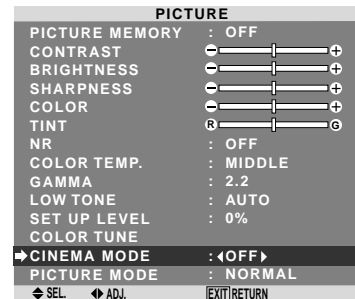
Setting the picture to suit the movie

The film image is automatically discriminated and projected in an image mode suited to the picture.

[NTSC, PAL, PAL60, 480I (60Hz), 525I (60Hz), 576I (50Hz), 625I (50Hz), 1035I (60Hz), 1080I (60Hz) only]

Example: Setting the “CINEMA MODE” to “OFF”

On “CINEMA MODE” of “PICTURE” menu, select “OFF”.



Information

■ CINEMA MODE

ON: Automatic discrimination of the image and projection in cinema mode.

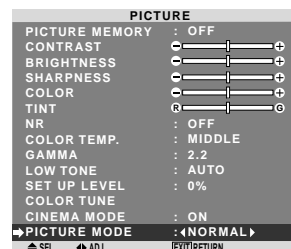
OFF: Cinema mode does not function.

Setting the picture mode according to the brightness of the room

There are four picture modes that can be used effectively according to the environment in which you are viewing the display.

Example: Setting the “THEATER1” mode

On “PICTURE MODE” of “PICTURE” menu, select “THEATER1”.



Information

■ Types of picture modes

THEATER1, 2: Set this mode when watching video in a dark room.

This mode provides darker, finer pictures, like the screen in movie theaters.

For a darker image, select THEATER2.

NORMAL: Set this mode when watching video in a bright room.

This mode provides dynamic pictures with distinct differences between light and dark sections.

BRIGHT: This mode provides brighter pictures than NORMAL.

DEFAULT: Use this to reset the picture to the factory default settings.

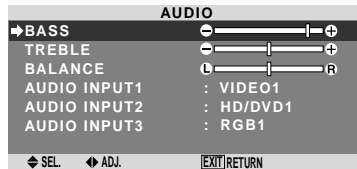
Audio Settings Menu

Adjusting the treble, bass and left/right balance and audio input select

The treble, bass and left/right balance can be adjusted to suit your tastes.

Example: Adjusting the bass

On “BASS” of “AUDIO” menu, adjust the bass.



Note : If “CAN NOT ADJUST” appears...
Set “AUDIO INPUT” on the AUDIO menu correctly.

Information

■ Audio settings menu

BASS: Controls the level of low frequency sound.
TREBLE: Controls the level of high frequency sound.
BALANCE: Controls the balance of the left and right channels.

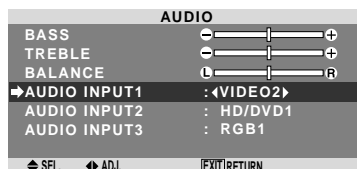
Setting the allocation of the audio connectors

Setting the AUDIO 1, 2, and 3 connectors to the desired input.

Example: Setting “AUDIO INPUT1” to “VIDEO 2”

On “AUDIO INPUT1” of “AUDIO” menu, select “VIDEO2”.

The available sources depend on the settings of input.



Information

■ AUDIO INPUT

A single audio input cannot be selected as the audio channel for more than one input terminal.

Image Adjust Settings Menu

Adjusting the Position, Size, Fine Picture, Picture Adj

The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position in the normal mode

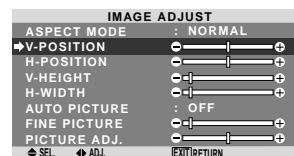
On “V-POSITION” of “IMAGE ADJUST” menu, adjust the position.

The mode switches as follows each time the ◀ or ▶ button is pressed:

NORMAL ↔ ANAMORPHIC

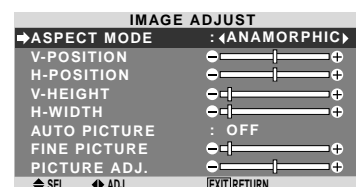
* The mode can also be switched by pressing the WIDE button on the remote control.

* The settings on the IMAGE ADJUST menu are not preset at the factory.



Information

■ When “AUTO PICTURE” is “OFF”



When Auto Picture is off, the Fine Picture and the Picture ADJ. items are displayed so that you can adjust them.

■ Adjusting the Auto Picture

ON: The Picture ADJ., Fine Picture and Position adjustments are made automatically.

Not available for digital ZOOM.

OFF: The Picture ADJ., Fine Picture and Position adjustments are made manually.

* If FINE PICTURE can't be adjusted, set Auto Picture to OFF and adjust manually.

■ Adjusting the position of the image

V-POSITION: Adjusts the vertical position of the image.

H-POSITION: Adjusts the horizontal position of the image.

V-HEIGHT: Adjusts the vertical size of the image. (Except for STADIUM mode)

H-WIDTH: Adjusts the horizontal size of the image. (Except for STADIUM mode)

FINE PICTURE*: Adjusts for flickering.

PICTURE ADJ.*: Adjusts for striped patterns on the image.

* The Picture ADJ. and Fine Picture features are available only when the “Auto Picture” is off.

* The AUTO PICTURE, FINE PICTURE and PICTURE ADJ. are available only for RGB signals. But, these features are not available for moving pictures on VIDEO, HD/DVD or RGB.

SET UP Settings Menu

Setting the language for the menus

The menu display can be set to one of eight languages.

Example: Setting the menu display to “DEUTSCH”

On “LANGUAGE” of “SET UP” menu, select “DEUTSCH”.

SET UP	
→LANGUAGE	: <DEUTSCH>
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ Language settings

ENGLISH	English	ITALIANO	Italian
DEUTSCH	German	SVENSKA	Swedish
FRANÇAIS	French	中文	Chinese
ESPAÑOL	Spanish	РУССКИЙ	Russian

Setting the BNC connectors

Select whether to set the input of the 5 BNC connectors to RGB and component or SCART1, 2.

Example: Set the BNC INPUT mode to “RGB”

On “BNC INPUT” of “SET UP” menu, select “RGB”.

SET UP	
LANGUAGE	: ENGLISH
→BNC INPUT	: <RGB>
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ BNC INPUT Settings

RGB: Use the 5BNC terminals for RGB input.

COMPONENT: Use the 3BNC terminals for component input.

SCART1: Use the 4BNC terminals for RGB with composite sync. See page E-7.

SCART2: Use the 3BNC terminals for RGB and the VIDEO1 terminal for composite sync. See page E-7.

Setting the RGB1 connector

Select one of the signals being transmitted to the RGB1 terminal.

Example: Set the D-SUB INPUT mode to “SCART3”

On “D-SUB INPUT” of “SET UP” menu, select “SCART3”.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
→D-SUB INPUT	: <SCART3>
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ D-SUB INPUT Settings

RGB: Use the D-SUB terminal for RGB input.

SCART3: Use the D-SUB terminal for RGB signal fed from SCART. See page E-7.

Setting high definition images to the suitable screen size

Use this procedure to set whether the number of vertical lines of the input high definition image is 1080I or 1035I or 540P.

Example: Setting the “HD SELECT” mode to “1035I”

On “HD SELECT” of “SET UP” menu, select “1035I”.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
→HD SELECT	: <1035I>
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ HD SELECT modes

These 3 modes are not displayed in correct image automatically.

1080I: Standard digital broadcasts

1035I: Japanese “High Vision” signal format

540P: Special Digital broadcasts (for example : DTC100)

Setting a computer image to the correct RGB select screen

With the computer image, select the RGB Select mode for a moving image such as (video) mode, wide mode or digital broadcast.

Example: Setting the “RGB SELECT” mode to “MOTION”

On “RGB SELECT” of “SET UP” menu, select “MOTION”.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
→RGB SELECT	: <MOTION>
DVI SET UP	: 1024×768
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ RGB SELECT modes

One of these 7 modes must be selected in order to display the following signals correctly.

AUTO: Select the suitable mode for the specifications of input signals as listed in the table “Computer input signals supported by this system” on page E-2 of Model Information.

STILL: To display VESA standard signals. (Use this mode for a still image from a computer.)

MOTION: The video signal (from a scan converter)

will be converted to RGB signals to make the picture more easily viewable. (Use this mode for a motion image from a computer.)

WIDE1: When an 852 dot × 480 line signal with a horizontal frequency of 31.7kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE1.

WIDE2: When an 848 dot × 480 line signal with a horizontal frequency of 31.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE2.

WIDE3: When an 1920 dot × 1200 line signal with a horizontal frequency of 74.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE3.

DTV: Set this mode when watching digital broadcasting (480P).

See page E-2 of Model Information for the details of the above settings.

Setting the signal and black level for DVI signal

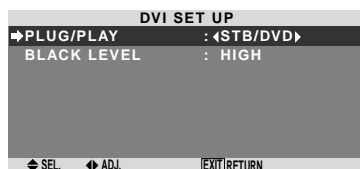
Choose the signal for the DVI connector (PC or STB/DVD) and set the black level.

Example: Setting the "PLUG/PLBH±-mode to "STB/DVD"

On "SET UP" menu, select "DVI SET UP", then press the MENU/ENTER button.

The "DVI SET UP" screen appears.

On "PLUG/PLAY" of "DVI SET UP" menu, select "STB/DVD".



Information

■ PLUG/PLAY settings

PC: When connected to the PC signal.

BLACK LEVEL is set to "LOW" automatically.

STB/DVD: When connected to the SET TOP BOX, DVD etc.

BLACK LEVEL is set to "HIGH" automatically.

■ BLACK LEVEL settings

LOW: When connected to the PC signal.

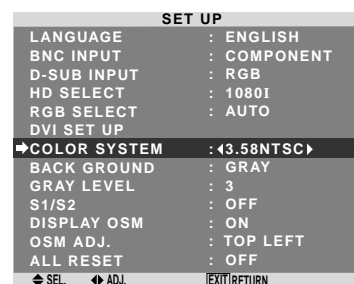
HIGH: When connected to the SET TOP BOX, DVD etc. Change "HIGH" into "LOW" if the black level appears gray.

Setting the video signal format

Use these operations to set the color systems of composite video signals or Y/C input signals.

Example: Setting the color system to "3.58 NTSC"

On "COLOR SYSTEM" of "SET UP" menu, select "3.58NTSC".



Information

■ Video signal formats

Different countries use different formats for video signals. Set to the color system used in your current country.

AUTO: The color systems are automatically identified and the format is set accordingly.

PAL: This is the standard format used mainly in the United Kingdom and Germany.

SECAM: This is the standard format used mainly in France and Russia.

4.43 NTSC, PAL60: This format is used for videos in countries using PAL and SECAM video signals.

3.58 NTSC: This is the standard format used mainly in the United States and Japan.

PAL-M: This is the standard format used mainly in Brazil.

PAL-N: This is the standard format used mainly in Argentina.

Setting the background color when no signal is being input

The color displayed on the background when there is no signal can be set to gray.

Example: Setting "BACK GROUND" to "BLACK"

On "BACK GROUND" of "SET UP" menu, select "BLACK".



Information

■ BACK GROUND Settings

BLACK: Sets the background color to black.

GRAY: Sets the background color to gray.

Setting this makes it easier to see that there is no signal.

Setting the gray level for the sides of the screen

Use this procedure to set the gray level for the parts on the screen on which nothing is displayed when the screen is set to the 4:3 size.

Example: Setting "GRAY LEVEL" to "5"

On "GRAY LEVEL" of "SET UP" menu, select "5".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 5
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
SEL. ADJ. EXIT/RETURN	

Information

GRAY LEVEL settings

This adjusts the brightness of the black (the gray level) for the sides of the screen.

The standard is 0 (black). The level can be adjusted from 0 to 15. The factory setting is 3 (dark gray).

Setting the screen size for S1/S2 video input

If the S-video signal contains screen size information, the image will be automatically adjusted to fit the screen when this S1/S2 is set to AUTO.

This feature is available only when an S-video signal is input via the VIDEO3 terminal.

Example: Setting "S1/S2" to "AUTO"

On "S1/S2" of "SET UP" menu, select "AUTO".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: AUTO
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
SEL. ADJ. EXIT/RETURN	

Information

S1/S2 settings

AUTO: Adjusts the screen size automatically according to the S1/S2 video signal.

OFF: Turns the S1/S2 function off.

Turning on/off the menu display

When this is set to OFF, the menu will not displayed even if you press the MENU/ENTER button.

Example: Turning the DISPLAY OSM off

On "DISPLAY OSM" of "SET UP" menu, select "OFF".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: OFF
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
SEL. ADJ. EXIT/RETURN	

Information

DISPLAY OSM settings

ON: The on-screen menu appears.

OFF: The on-screen menu does not appear.

If you press the DISPLAY button on the remote control for more than 3 seconds the main menu will appear and can be set (although it is not ON).

Setting the position of the menu

Adjusts the position of the menu when it appears on the screen.

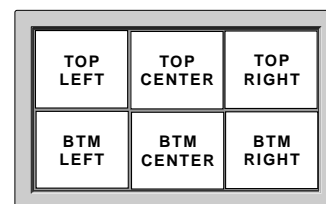
Example: Set the position to "TOP CEN"

On "OSM ADJ." of "SET UP" menu, select "TOP CEN".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP CENTER
ALL RESET	: OFF
SEL. ADJ. EXIT/RETURN	

Information

OSM ADJUST settings



Resetting to the default values

Use these operations to restore all the settings (PICTURE, AUDIO, IMAGE ADJUST, SET UP, etc) to the factory default values.

Refer to page E-15 for items to be reset.

On "ALL RESET" of "SET UP" menu, select "ON", then press the MENU/ENTER button.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: ON
SEL. ADJ. EXIT/RETURN	

ALL RESET	
SETTING NOW	

When the "SETTING NOW" screen disappears, then all the settings are restored to the default values.

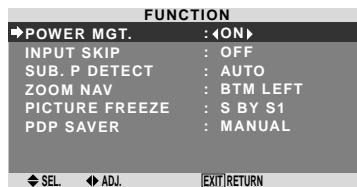
Function Settings Menu

Setting the power management for computer images

This energy-saving (power management) function automatically reduces the monitor's power consumption if no operation is performed for a certain amount of time.

Example: Turning the power management function on

On "POWER MGT." of "FUNCTION" menu, select "ON".



Information

■ Power management function

- * The power management function automatically reduces the monitor's power consumption if the computer's keyboard or mouse is not operated for a certain amount of time. This function can be used when using the monitor with a computer.
- * If the computer's power is not turned on or if the computer and selector tuner are not properly connected, the system is set to the off state.
- * For instructions on using the computer's power management function, refer to the computer's operating instructions.

■ Power management settings

ON: In this mode the power management function is turned on.

OFF: In this mode the power management function is turned off.

■ Power management function and POWER/STANDBY indicator

The POWER/STANDBY indicator indicates the status of the power management function. See below for indicator status and description.

POWER/STANDBY indicator

Power management mode	POWER/STANDBY indicator	Power management operating status	Description	Turning the picture back on
On	Green	Not activated.	Horizontal and vertical synchronizing signals are present from the computer.	Picture already on.
Off	Red	Activated.	Horizontal and/or vertical synchronizing signals are not sent from the computer.	Operate the keyboard or mouse. The picture reappears.

Setting the Input Skip

When this is ON, signals which are not present will be skipped over and only pictures whose signals are being transmitted will be displayed.

This setting is valid only for the INPUT SELECT button on the unit.

Example: Set to "ON"

On "INPUT SKIP" of "FUNCTION" menu, select "ON".



Information

■ INPUT SKIP settings

OFF: Regardless of the presence of the signal, scan and display all signals.

ON: If no input signal is present, skip that signal.

* "SETTING NOW" will appear during the input search.

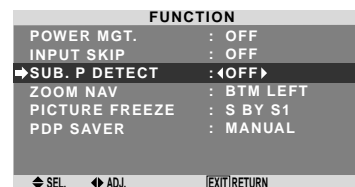
Erasing the sub screen image when there is no input signal

This function automatically erases the black frame of the sub screen when there is no sub screen input signal.

This feature is available only when the picture-in-picture mode is selected.

Example: Set to "OFF"

On "SUB. P DETECT" of "FUNCTION" menu, select "OFF".



Information

■ SUB. P DETECT Function

- * The sub screen disappears when the input signal is lost.
- * Loss of the input signal means a condition in which the video signal and the sync signal are not present.
- * Under conditions in which the sub screen has disappeared, the ZOOM NAV and PICTURE FREEZE functions will not work. The WIDE button will not function either.

■ SUB. P DETECT settings

AUTO: The black frame disappears 3 seconds after the input signal is lost.

OFF: Turns off the SUB. P DETECT function.

Displaying the entire image during DIGITAL ZOOM operations

Use this function to display the entire image within the sub screen together with an enlarged image on the main screen.

Example: Setting "ZOOM NAV" to "S BY S"

On "ZOOM NAV" of "FUNCTION" menu, select "S BY S".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
→ ZOOM NAV	: ◀ S BY S ▶
PICTURE FREEZE	: S BY S1
PDP SAVER	: MANUAL

◀ SEL ▶ ADJ. [EXIT] RETURN

Information

■ ZOOM NAV Function

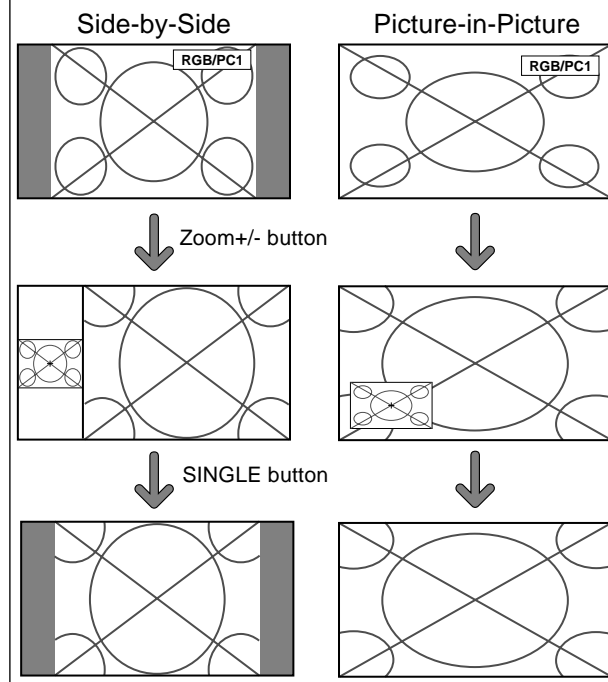
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during multi screen mode.
- * This feature does not function while PICTURE FREEZE is operating.
- * Providing a 2-screen display will cancel this function.

■ ZOOM NAV settings

OFF: Will not show the entire image on the sub screen.

S BY S: Will show the entire image on the sub screen of side-by-side mode.

BTM LEFT~TOP LEFT: Will show the entire image on the sub screen of picture-in-picture mode.



Displaying still images in the sub screen

This feature enables display in the sub screen of still images captured by pressing the ACTIVE SELECT button.

Example: Setting "PICTURE FREEZE" to "BTM LEFT"

On "PICTURE FREEZE" of "FUNCTION" menu, select "BTM LEFT".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
ZOOM NAV	: BTM LEFT
→ PICTURE FREEZE	: ◀ BTM LEFT ▶
PDP SAVER	: MANUAL

◀ SEL ▶ ADJ. [EXIT] RETURN

Information

■ PICTURE FREEZE Function

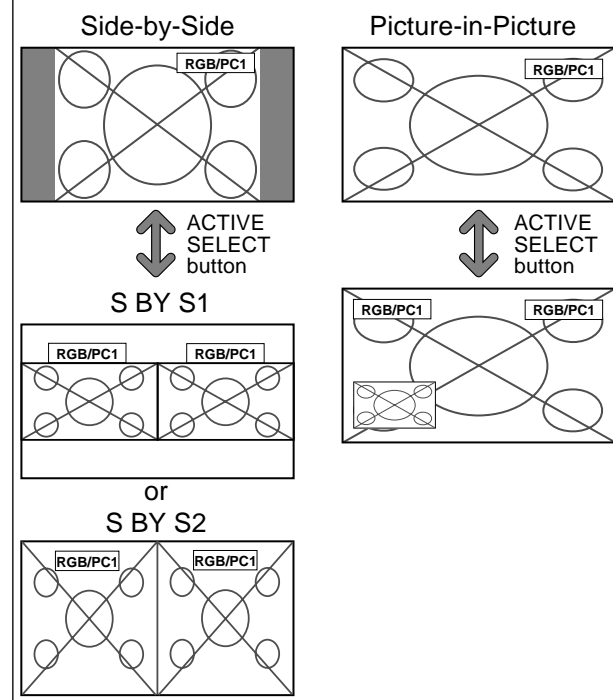
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during multi screen mode.
- * Digital zoom is not available while this function is operating.
- * A further press of the ACTIVE SELECT button while this function is operating will cancel this function.
- * Providing a 2-screen display will cancel this function.

■ PICTURE FREEZE settings

OFF: Will not show the still image.

S BY S1, 2: The still images captured by pressing the ACTIVE SELECT button will be shown on the sub screen of side-by-side mode.

BTM LEFT~TOP LEFT: The still images captured by pressing the ACTIVE SELECT button will be shown on the sub screen of picture-in-picture mode.



Reducing burn-in of the screen

The brightness of the screen, the position of the picture, positive/negative mode and screen wiper are adjusted to reduce burn-in of the screen.

On "PDP SAVER" of "FUNCTION" menu, select "MANUAL", then press the MENU/ENTER button.

The "PDP SAVER" screen appears.

PDP SAVER	
▶PEAK BRIGHT	: ◀100%▶
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ When set to AUTO

Set automatically, as described below.

PEAK BRIGHT: 100%

ORBITER: OFF

INVERSE/WHITE: OFF

SCREEN WIPER: OFF

SOFT FOCUS: OFF

OSM ORBITER: ON

OSM CONTRAST: LOW

PEAK BRIGHT

Use this to activate the brightness limiter.

Example: Setting "PEAK BRIGHT" to "75%"

On "PEAK BRIGHT" of "PDP SAVER" menu, select "75%".

PDP SAVER	
▶PEAK BRIGHT	: ◀75%▶
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ PEAK BRIGHT settings

100%: The brightness of the screen is adjusted automatically to suit the picture quality.

75%, 50%, 25%: Sets maximum brightness.

The brightness level decreases in the order of 75%, 50%, 25%. 25% provides minimum brightness.

* These values are approximate.

ORBITER

Use this to set the picture shift.

Example: Setting "ORBITER" to "AUTO1"

On "ORBITER" of "PDP SAVER" menu, select "AUTO1".

PDP SAVER	
PEAK BRIGHT	: 100%
▶ORBITER	: ◀AUTO1▶
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ ORBITER settings

OFF: Orbiter mode does not function.

This is the default setting when RGB is input.

AUTO1: The picture moves around the screen intermittently, making the picture smaller. This is the default setting when a Video or a DVD/HD/DTV signal is input. Set to "OFF" when these signals are not used.

AUTO2: The picture moves around the screen intermittently, making the picture bigger.

* When a Video or a DVD/HD/DTV signal is input, the AUTO1 and 2 functions will affect only the moving picture and will not make the screen smaller or bigger.

INVERSE/WHITE

Use this to set the inverse mode or to display a white screen.

Example: Setting "INVERSE/WHITE" to "WHITE"

On "INVERSE/WHITE" of "PDP SAVER" menu, select "WHITE".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
▶INVERSE/WHITE	: ◀WHITE▶
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ INVERSE/WHITE Settings

OFF: Inverse/white mode does not function.

INVERSE: The picture is displayed alternately between positive image and negative image.

WHITE: The entire screen turns white.

SCREEN WIPER

When this is set to ON, a white vertical bar moves repeatedly from the left and of the screen to the right end at a constant speed.

Example: Setting "SCREEN WIPER" to "ON"

On "SCREEN WIPER" of "PDP SAVER" menu, select "ON".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
▶SCREEN WIPER	: ◀ON▶
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ SCREEN WIPER

ON: The white vertical bar appears.

OFF: Screen wiper mode does not function.

SOFT FOCUS

Reduces edges and softens the image.

Example: Setting "SOFT FOCUS" to "LEVEL2"

On "SOFT FOCUS" of "PDP SAVER" menu, select "LEVEL2".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
➔SOFT FOCUS	: ◀LEVEL2▶
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ SOFT FOCUS settings

OFF: Turns the SOFT FOCUS function off.

LEVEL 1, 2, 3, 4: Activates the SOFT FOCUS setting.

The higher numbers create a softer image.

"SHARPNESS" can not be adjusted on the "PICTURE" menu.

OSM ORBITER

Use this to set OSM menu shift.

Example: Setting "OSM ORBITER" to "OFF"

On "OSM ORBITER" of "PDP SAVER" menu, select "OFF".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
➔OSM ORBITER	: ◀OFF▶
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN



Information

■ OSM ORBITER settings

ON: The position of the menu will be shifted by eight dots each time OSM is displayed.

OFF: OSM will be displayed at the same position.

OSM CONTRAST

Use this to reduce the brightness of OSM menu.

Example: Setting "OSM CONTRAST" to "NORMAL"

On "OSM CONTRAST" of "PDP SAVER" menu, select "NORMAL".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
➔OSM CONTRAST	: ◀NORMAL▶
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ OSM CONTRAST settings

NORMAL: OSM brightness is set to normal.

LOW: OSM brightness is set to lower.

Signal Information Menu

Checking the frequencies, polarities of input signals, and resolution

Use this function to check the frequencies and polarities of the signals currently being input from a computer, etc. On "MAIN MENU", select "SIGNAL INFO.", then press the MENU/ENTER button.

The "SIGNAL INFORMATION" is displayed.

SIGNAL INFORMATION	
H. FREQUENCY	: 48.4KHz
V. FREQUENCY	: 60.0Hz
H. POLARITY	: NEGATIVE
V. POLARITY	: NEGATIVE
MEMORY	: 24
RESOLUTION	: 1024 × 768
◀SEL. ▶ADJ.	[EXIT]RETURN

PC: MEMORY will be displayed.

Others: MODE will be displayed.

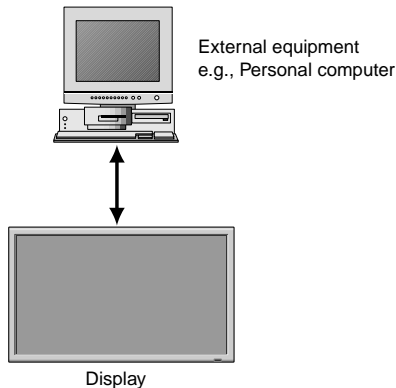
External Control Pin Assignments

Application

These specifications cover the communications control of the plasma monitor by external equipment.

Connections

Connections are made as described below.

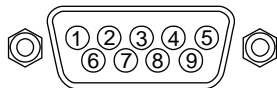


Connector on the plasma monitor side: EXTERNAL CONTROL connector.

Use a crossed (reverse) cable.

Type of connector: D-Sub 9-pin male

Pin No.	Pin Name	Pin No.	Pin Name
1	No Connection	6	DSR (DCE side ready)
2	RXD (Receive data)	7	RTS (Ready to send)
3	TXD (Transmit data)	8	CTS (Clear to send)
4	DTR (DTE side ready)	9	No connection
5	GND		



Communication Parameters

- | | |
|--------------------------|--------------|
| (1) Communication system | Asynchronous |
| (2) Interface | RS-232C |
| (3) Baud rate | 9600 bps |
| (4) Data length | 8 bits |
| (5) Parity | Odd |
| (6) Stop bit | 1 bit |
| (7) Communication code | Hex |

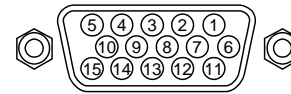
External Control Codes (Reference)

FUNCTION		CODE DATA							
Power ON		9FH	80H	60H	4EH	00H	CDH		
OFF		9FH	80H	60H	4FH	00H	CEH		
Input Switch	Video1 (BNC)	DFH	80H	60H	47H	01H	01H	08H	
	Video2 (RCA)	DFH	80H	60H	47H	01H	02H	09H	
	Video3 (S-Video)	DFH	80H	60H	47H	01H	03H	0AH	
	DVD1/HD1 (RCA)	DFH	80H	60H	47H	01H	05H	0CH	
	DVD2/HD2 (BNC)	DFH	80H	60H	47H	01H	06H	0DH	
	DVD3/HD3 (DVI)	DFH	80H	60H	47H	01H	0EH	15H	
	RGB1 (mini D-Sub 15-Pin)	DFH	80H	60H	47H	01H	07H	0EH	
	RGB2 (5BNC)	DFH	80H	60H	47H	01H	08H	0FH	
Audio Mute	ON	9FH	80H	60H	3EH	00H	BDH		
	OFF	9FH	80H	60H	3FH	00H	BEH		
Picture Mode	NORMAL	DFH	80H	60H	0AH	01H	01H	CBH	
	THEAT. 1	DFH	80H	60H	0AH	01H	02H	CCH	
	THEAT. 2	DFH	80H	60H	0AH	01H	03H	CDH	
	DEFAULT	DFH	80H	60H	0AH	01H	04H	CEH	
	BRIGHT	DFH	80H	60H	0AH	01H	05H	CFH	
Screen Mode	STADIUM	DFH	80H	60H	51H	01H	02H	13H	
	ZOOM	DFH	80H	60H	51H	01H	03H	14H	
	NORMAL	DFH	80H	60H	51H	01H	04H	15H	
	ANAMORPHIC	DFH	80H	60H	51H	01H	05H	16H	
	14 : 9	DFH	80H	60H	51H	01H	09H	1AH	
	2.35 : 1	DFH	80H	60H	51H	01H	0AH	1BH	
Auto Picture	ON	DFH	80H	60H	7FH	03H	03H	09H	00H 4DH
	OFF	DFH	80H	60H	7FH	03H	03H	09H	01H 4EH
Cinema Mode	ON	DFH	80H	60H	C1H	01H	01H	82H	
	OFF	DFH	80H	60H	C1H	01H	02H	83H	

Note: Contact your local dealer for a full list of the External Control Codes if needed.

mini D-Sub 15-pin connector (Analog)

RGB 1



Pin No.	Signal (Analog)
1	Red
2	Green or sync-on-green
3	Blue
4	No connection
5	Ground
6	Red ground
7	Green ground
8	Blue ground
9	No connection
10	Sync signal ground
11	No connection
12	Bi-directional DATA (SDA)
13	Horizontal sync or Composite sync
14	Vertical sync
15	Data clock

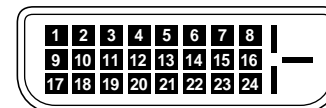
DVI-D 24-pin connector (Digital)

The unit is equipped with a type of connector commonly used for digital.

(This cannot be used for an analog input.)

(TMDS can be used for one link only.)

RGB 3



Pin No.	Signal (Digital)
1	T.M.D.S Data 2 -
2	T.M.D.S Data 2 +
3	T.M.D.S Data 2 Shield
4	No connection
5	No connection
6	DDC Clock
7	DDC Data
8	No connection
9	T.M.D.S Data 1 -
10	T.M.D.S Data 1 +
11	T.M.D.S Data 1 Shield
12	No connection
13	No connection
14	+5V Power
15	Ground
16	Hot Plug Detect
17	T.M.D.S Data 0 -
18	T.M.D.S Data 0 +
19	T.M.D.S Data 0 Shield
20	No connection
21	No connection
22	T.M.D.S Clock Shield
23	T.M.D.S Clock +
24	T.M.D.S Clock -

Troubleshooting

If the picture quality is poor or there is some other problem, check the adjustments, operations, etc., before requesting service.

Symptom	Checks	Remedy
Mechanical sound is heard.	• Maybe the sound from the cooling fans used to prevent over heating.	
The unit emits a crackling sound.	• Are the image and sound normal?	• If there are no abnormalities in the image and sound, the noise is caused by the cabinet reacting to changes in temperature. This will not affect performance.
Picture is disturbed. Sound is noisy. Remote control operates erroneously.	• Is a connected component set directly in front or at the side of the display?	• Leave some space between the display and the connected components.
The remote control does not work.	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
Monitor's power does not turn on when the remote control's power button is pressed.	• Is the monitor's power cord plugged into a power outlet?	• Plug the monitor's power cord into a power outlet.
	• Are all the monitor's indicators off?	• Press the power button on the monitor to turn on the power.
	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
Monitor does not operate when the remote control's buttons are pressed.	• Is the remote control pointed at the monitor, or is there an obstacle between the remote control and the monitor?	• Point the remote control at the monitor's remote control sensor when pressing buttons, or remove the obstacle.
	• Is direct sunlight or strong artificial light shining on the monitor's remote control sensor?	• Eliminate the light by closing curtains, pointing the light in a different direction, etc.
	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
No sound or picture is produced.	• Is the monitor's power cord plugged into a power outlet?	• Plug the monitor's power cord into a power outlet.
Picture appears but no sound is produced.	• Is the volume set at the minimum?	• Increase the volume.
	• Is the mute mode set?	• Press the remote control's MUTE button.
	• Are the speakers properly connected?	• Connect the speakers properly.
	• Is AUDIO INPUT set correctly?	• Set AUDIO INPUT on the AUDIO menu correctly.
Poor picture with VIDEO signal input.	• Improper control setting. Local interference. Cable interconnections. Input impedance is not correct level.	• Adjust picture control as needed. Try another location for the monitor. Be sure all connections are secure.
Poor picture with RGB signal input.	• Improper control setting. Incorrect 15 PIN connector pin connections.	• Adjust picture controls as needed. Check pin assignments and connections.
Tint is poor or colors are weak.	• Are the tint and colors properly adjusted?	• Adjust the tint and color (under PICTURE).
Nothing appears on screen.	• Is the computer's power turned on?	• Turn on the computer's power.
	• Is a source connected?	• Connect source to the monitor.
	• Is the power management function in the standby or off mode?	• Operate the computer (move the mouse, etc.).
Part of picture is cut off or picture is not centered.	• Is the position adjustment appropriate?	• Adjust the IMAGE ADJUST properly.
Image is too large or too small.	• Is the screen size adjustment appropriate?	• Press the WIDE button on the remote control and adjust properly.
Picture is unstable.	• Is the computer's resolution setting appropriate?	• Set to the proper resolution.
POWER/STANDBY indicator is lighted in red.	• Horizontal and / or vertical sync signal is not present when the Intelligent Power Manager control is on.	• Check the input signal.
POWER/STANDBY indicator is blinking in red.	• The temperature inside the main unit has become too high and has activated the protector.	• Promptly switch off the power of the main unit and wait until the internal temperature drops. See*1.
POWER/STANDBY indicator is blinking in green and red, or green.	_____	• Promptly switch off the power of the main unit. See *2.

***1 Overheat protector**

If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location and wait for the monitor to cool for 60 minutes. If the problem persists, contact your dealer.

***2 In the following case, power off the monitor immediately and contact your dealer or authorized Service Center.**

The monitor turns off 5 seconds after powering on and then the POWER/STANDBY indicator blinks. It indicates that the power supply circuit, plasma display panel, temperature sensor, or one or more fans have been damaged.



PX-50XR4W

Model Information

Modell-Informationen

Informations modèle

Información del modelo

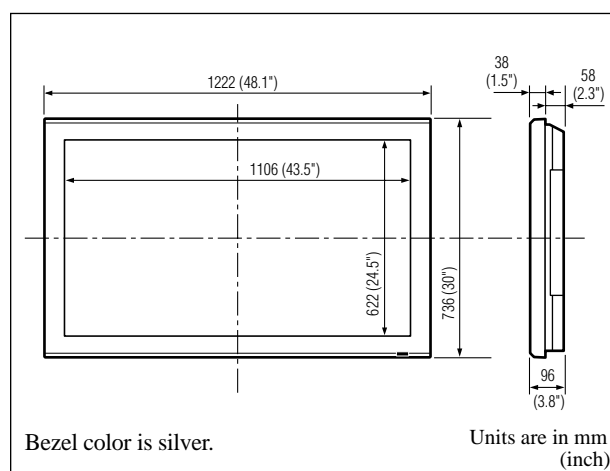
Informazioni sul modello

Информация о модели

Specifications

For the operation of your plasma monitor, refer to "Operation Manual".

Screen Size	1106(H) × 622(V) mm 43.5"(H) × 24.5"(V) inches diagonal 50"
Aspect Ratio	16 : 9
Resolution	1365(H) × 768(V) pixels
Pixel Pitch	0.81(H) × 0.81(V) mm 0.032"(H) × 0.032"(V) inches
Color Processing	4,096 steps, 68.7 billion colors
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD* ¹ , DVD* ¹ , DTV* ¹
Input Terminals	
RGB	
Visual 1 (Analog)	mini D-sub 15-pin × 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) × 1* ²
Visual 3 (Digital)	DVI-D 24-pin × 1* ³
Video	
Visual 1	BNC × 1
Visual 2	RCA-pin × 1
Visual 3	S-Video: DIN 4-pin × 1
DVD/HD/DTV	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) × 1* ¹
Visual 2	BNC (Y, PB[CB], PR[CR]) × 1* ^{1, *2}
Visual 3	DVI-D 24-pin × 1* ³
Audio	Stereo RCA × 3 (Selectable)
External Control	D-sub 9-pin × 1 (RS-232C)
Sound output	9W+9W at 6 ohm
Power Supply	AC100-240V 50/60Hz
Current Rating	7.6 A (maximum)
Power Consumption	435W (typical)
Dimensions	1222 (W) × 736 (H) × 96(D) mm 48.1 (W) × 30 (H) × 3.8 (D) inches
Weight	44.5 kg / 98.1 lbs (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Humidity	20 to 80% (no condensation)
Altitude	0 to 2800 m / 0 to 9180 feet
Storage Temperature	-10°C to 50°C / 14°F to 122°F
Humidity	10 to 90% (no condensation)
Altitude	0 to 3000 m / 0 to 9840 feet
Front Panel User Controls	Power on/off, Input source select, Volume up/down/ OSM control
Remote Control Functions	Power on/off, Input source select, OSM control, Volume up/down, Cursor (UP, DOWN, LEFT, RIGHT), Zoom up/down, Split screen buttons
OSM Functions	PICTURE (PICTURE MEMORY/CONTRAST/ BRIGHTNESS/SHARPNESS/COLOR/TINT/ NR/COLOR TEMP./WHITE BALANCE/ GAMMA/LOW TONE/SET UP LEVEL/COLOR TUNE/CINEMA MODE/PICTURE MODE), AUDIO (BASS/TREBLE/BALANCE/AUDIO INPUT1/AUDIO INPUT2/AUDIO INPUT3), IMAGE ADJUST (ASPECT MODE/V- POSITION/H-POSITION/V-HEIGHT/H- WIDTH/AUTO PICTURE/FINE PICTURE/ PICTURE ADJ.), SET UP (LANGUAGE*/BNC INPUT/D-SUB INPUT/HD SELECT/RGB SELECT/DVI SET UP/COLOR SYSTEM/BACK GROUND/GRAY LEVEL/S1/S2/DISPLAY OSM/OSM ADJ./ALL RESET), FUNCTION (POWER MGT./INPUT SKIP/SUB. P DETECT/ZOOM NAV/PICTURE FREEZE/PDP SAVER [PEAK BRIGHT / ORBITER / INVERSE/WHITE / SCREEN WIPER / SOFT FOCUS / OSM ORBITER / OSM CONTRAST]), SIGNAL INFO.



The features and specifications may be subject to change without notice.

*¹ HD/DVD/DTV input signals supported on this system

480P (60 Hz)	480I (60 Hz)
525P (60 Hz)	525I (60 Hz)
576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)
720P (60 Hz)	1035I (60 Hz)
1080I (50 Hz)	1080I (60 Hz)

*² The 5-BNC connectors are used as RGB/PC2 and HD/DVD2 input. Select one of them under "BNC INPUT".

*³ Compatible with HDCP.

Supported Signals

- 640 × 480P @ 59.94/60Hz
- 1280 × 720P @ 59.94/60Hz
- 1920 × 1080I @ 59.94/60Hz
- 720 × 480P @ 59.94/60Hz
- 1440 (720) × 480I @ 59.94/60Hz
- 1920 × 1080I @ 50Hz
- 720 × 576P @ 50Hz
- 1440 (720) × 576P @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

*English, German, French, Italian, Spanish, Swedish, Chinese, Russian

Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Self Diagnosis, Image Burn reduction tools (PEAK BRIGHT, INVERSE, WHITE, ORBITER, SCREEN WIPER), Color Temperature select (high/middle/ middle low/low, user has 4 memories), Auto Picture, Input Skip, Color Tune, Low Tone (3 mode), Gamma Correction (4 mode), Plug and play (DDC1, DDC2b, RGB3: DDC2b only), Split screen operations
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Accessories	Remote control with two AAA batteries, Power cord, Manuals, Safety metal fittings, Ferrite cores, Bands, Cable clamps, HDMI-DVI cable
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Regulations	Meets EMC Directive (EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3) Meets Low Voltage Directive (EN60950-1 and EN60065, IEC60950-1 and IEC60065, SEMKO Approved) Meets AS/NZS CISPR 22:2002 Class B
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Table of Signals Supported

Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 1024 dots×768 lines signal. (Except for *2,3,4)
- When the screen mode is ANAMORPHIC, each signal is converted to a 1365 dots×768 lines signal. (Except for *3)

Computer input signals supported by this system

Model	Dots × lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode		RGB select*5	DVI	Memory
				Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	ANAMORPHIC (16:9)			
	640×400	70.1	31.5	NEG	NEG	YES	YES	YES*2	YES	--	NO	4
IBM PC/AT*8 compatible computers	640×480	59.9	31.5	NEG	NEG	YES	YES	YES	YES	STILL	YES	5
		72.8	37.9	NEG	NEG	YES	YES	YES	YES	--	YES	7
		75.0	37.5	NEG	NEG	YES	YES	YES	YES	STILL	YES	8
		85.0	43.3	NEG	NEG	YES	YES	YES	YES	--	YES	9
		100.4	51.1	NEG	NEG	YES	YES	YES	YES	--	YES	41
		120.4	61.3	NEG	NEG	YES	YES	YES	YES	--	YES	42
	848×480	60.0	31.0	POS	POS	YES	YES	--	YES	WIDE2	YES	19
	852×480*1	60.0	31.7	NEG	NEG	YES	YES	--	YES	WIDE1	YES	17
	800×600	56.3	35.2	POS	POS	YES	YES	YES	YES	STILL	YES	11
		60.3	37.9	POS	POS	YES	YES	YES	YES	STILL	YES	12
		72.2	48.1	POS	POS	YES	YES	YES	YES	--	YES	13
		75.0	46.9	POS	POS	YES	YES	YES	YES	--	YES	14
		85.1	53.7	POS	POS	YES	YES	YES	YES	--	YES	15
		99.8	63.0	POS	POS	YES	YES	YES	YES	--	YES	43
	1024×768	120.0	75.7	POS	POS	YES	YES	YES	YES	--	YES	44
		60.0	48.4	NEG	NEG	YES	YES	YES*3	YES	STILL	YES	24
		70.1	56.5	NEG	NEG	YES	YES	YES*3	YES	--	YES	25
		75.0	60.0	POS	POS	YES	YES	YES*3	YES	STILL	YES	26
		85.0	68.7	POS	POS	YES	YES	YES*3	YES	--	YES	27
		100.6	80.5	NEG	NEG	YES	YES	YES*3	YES	--	YES	45
	1152×864	75.0	67.5	POS	POS	YES	YES	YES	YES	STILL	YES	51
	1280×768	56.2	45.1	POS	POS	YES	YES	--	YES	WIDE1	NO	52
		59.8	48.0	POS	NEG	YES	YES	--	YES	WIDE3	YES	80
	1280×768*9	69.8	56.0	NEG	POS	YES	YES	--	YES	WIDE1	YES	66
	1280×800*9	60.0	49.7	NEG	NEG	YES	YES	--	YES	WIDE1	YES	21
	1280×854*9	60.0	53.1	NEG	NEG	YES	YES	--	YES	WIDE2	YES	37
	1360×765	60.0	47.7	POS	POS	YES	YES	--	YES*3	WIDE1	NO	22
	1360×768	60.0	47.7	POS	POS	YES	YES	--	YES*3	WIDE1	YES	22
	1376×768	59.9	48.3	NEG	POS	YES	YES	--	YES	WIDE2	YES	53
	1280×1024	60.0	64.0	POS	POS	YES	YES	YES*4	YES	STILL	YES	29
		75.0	80.0	POS	POS	YES	YES	YES*4	YES	--	YES	30
		85.0	91.1	POS	POS	YES	YES	YES*4	YES	--	YES	40
		100.1	108.5	POS	POS	YES	YES	YES*4	YES	--	NO	47
	1680×1050*9	60.0	65.3	NEG	NEG	YES	YES	--	YES	WIDE4	YES	38
	1600×1200	60.0	75.0	POS	POS	YES	YES	YES	YES	--	YES	54
		65.0	81.3	POS	POS	YES	YES	YES	YES	--	NO	55
		70.0	87.5	POS	POS	YES	YES	YES	YES	--	NO	56
		75.0	93.8	POS	POS	YES	YES	YES	YES	--	NO	57
		85.0	106.3	POS	POS	YES	YES	YES	YES	--	NO	58
	1920×1200*9	60.0	74.6	NEG	NEG	YES	YES	--	YES	WIDE2	--	81
	1920×1200RB*9	60.0	74.0	NEG	NEG	YES	YES	--	YES	WIDE3	YES	88
Apple Macintosh*6 *8	640×480	66.7	35.0	Sync on G	Sync on G	--	--	YES	YES	--	NO	6
	832×624	74.6	49.7	Sync on G	Sync on G	--	--	YES	YES	--	NO	16
	1024×768	74.9	60.2	Sync on G	Sync on G	--	--	YES*3	YES	WIDE1	NO	28
	1152×870	75.1	68.7	Sync on G	Sync on G	--	--	YES	YES	WIDE1	NO	39
	1440×900*9	60.0	56.0	NEG	NEG	YES	YES	--	YES	--	YES	89
Work Station (EWS4800)*8	1280×1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	YES	--	YES	29
		71.2	75.1	NEG	NEG	YES	YES	YES*4	YES	--	YES	48
Work Station(HP)*8	1280×1024	72.0	78.1	--	--	--	--	YES*4	YES	--	YES	59
Work Station (SUN)*8	1152×900	66.0	61.8	C Sync	C Sync	--	--	YES	YES	--	YES	60
		76.0	71.7	C Sync	C Sync	--	--	YES	YES	--	YES	61
	1280×1024	76.1	81.1	C Sync	C Sync	--	--	YES*4	YES	--	YES	30
Work Station (SGI)	1024×768	60.0	49.7	--	--	--	--	YES*3	YES	--	YES	62
	1280×1024	60.0	63.9	--	--	--	--	YES*4	YES	--	YES	29
IDC-3000G												
PAL625P	768×576	50.0	31.4	NEG	NEG	YES	YES	YES*7	YES*7	--	NO	31
NTSC525P	640×480	59.9	31.5	NEG	NEG	YES	YES	YES*7	YES*7	MOTION	NO	32

- *1 Only when using a graphic accelerator board that is capable of displaying 852×480 .
- *2 Display only 640 lines with the screen center of the vertical orientation located at the center.
- *3 The picture is displayed in the original resolution. The picture will be compressed for other signals.
- *4 Aspect ratio is 5:4. This signal is converted to a $720 \text{ dots} \times 768 \text{ lines}$ signal.
- *5 Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
- *6 To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin) to your computer's video port.
- *7 Other screen modes (ZOOM and STADIUM) are available as well.
- *8 When viewing a moving picture at a vertical frequency greater than 65Hz, the picture may sometimes be unstable (jumpy). If this occurs, please set the refresh rate of the external equipment to 60Hz.
To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (567 interlaced lines, 50Hz refresh rate) when sync polarity is "Sync on Green", set "RGB SELECT" to "MOTION".
- *9 CVT standard compliant.

NOTE:

- While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.
- When a $1280 \text{ dots} \times 1024 \text{ lines}$ signal or $1600 \text{ dots} \times 1200 \text{ lines}$ signal is input to the monitor, the picture will be compressed.
- This monitor has a resolution of $1365 \text{ dots} \times 768 \text{ lines}$. It is recommended that the input signal should be XGA, wide XGA, or equivalent.
- With digital input some signals are not accepted.
- The sync may be disturbed when a nonstandard signal other than the aforementioned is input.
- If you are connecting a composite sync signal, use the HD terminal.

What is HDCP/HDCP technology?

HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).

If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

- "IBM PC/AT" and "XGA" are registered trademarks of International Business Machines, Inc. of the United States.
- "Apple Macintosh" is a registered trademark of Apple Computer, Inc. of the United States.

Important Information

NOTE:

When you connect a computer to this monitor, use an RGB cable including the ferrite core on both ends of the cable. And regarding DVI and power cable, attach the supplied ferrite cores. If you do not do this, this monitor will not conform to mandatory CE or C-Tick standards.

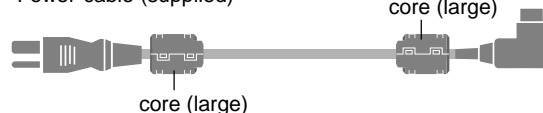
Set the ferrite cores on both ends of the DVI cable (not supplied), and both ends of the power cable (supplied). Close the lid tightly until the clamps click.

Use the band to fasten the ferrite core (supplied) to the DVI cable.

DVI cable (not supplied)



Power cable (supplied)



Operation Manual

(Enhanced split screen Model)

For the specifications of your plasma monitor, refer to "Model Information".

ENGLISH

DEUTSCH

FRANÇAIS

ESPAÑOL


ITALIANO

РУССКИЙ


Important Information

Precautions

Please read this manual carefully before using your plasma monitor and keep the manual handy for future reference.



CAUTION



**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS, UNLESS THE PRONGS CAN BE FULLY INSERTED. REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Warnings and Safety Precaution

This plasma monitor is designed and manufactured to provide long, trouble-free service. No maintenance other than cleaning is required. Please see the section "Plasma monitor cleaning procedure" on the next page.

The plasma display panel consists of fine picture elements (cells) with more than 99.99 percent active cells. There may be some cells that do not produce light or remain lit.

For operating safety and to avoid damage to the unit, read carefully and observe the following instructions.

To avoid shock and fire hazards:

1. Provide adequate space for ventilation to avoid internal heat build-up. Do not cover rear vents or install the unit in a closed cabinet or shelves.
If you install the unit in an enclosure, make sure there is adequate space at the top of the unit to allow hot air to rise and escape. If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location, and wait for 60 minutes to cool the monitor. If the problem persists, contact your dealer for service.
2. Do not use this unit's polarized plug with extension cords or outlets unless the prongs can be completely inserted.
3. Do not expose the unit to water or moisture.
4. Avoid damage to the power cord, and do not attempt to modify the power cord.
5. Unplug the power cord during electrical storms or if the unit will not be used over a long period.
6. Do not open the cabinet which has potentially dangerous high voltage components inside. If the unit is damaged in this way the warranty will be void. Moreover, there is a serious risk of electric shock.

7. Do not attempt to service or repair the unit. The manufacturer is not liable for any bodily harm or damage caused if unqualified persons attempt service or open the back cover. Refer all service to authorized Service Centers.

To avoid damage and prolong operating life:

1. Use only with 100-240V 50/60Hz AC power supply. Continued operation at line voltages greater than 100-240 Volts AC will shorten the life of the unit, and might even cause a fire hazard.
2. Handle the unit carefully when installing it and do not drop.
3. Set the unit away from heat, excessive dust, and direct sunlight.
4. Protect the inside of the unit from liquids and small metal objects.
In case of accident, unplug the power cord and have it serviced by an authorized Service Center.
5. Do not hit or scratch the panel surface as this causes flaws on the surface of the screen.
6. For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.
7. As is the case with any phosphor-based display (like a CRT monitor, for example) light output will gradually decrease over the life of a Plasma Display Panel.
8. To avoid sulfurization it is strongly recommended not to place the unit in a dressing room in a public bath or hot spring bath.
9. Do not use in a moving vehicle, as the unit could drop or topple over and cause injuries.
10. Do not place the unit on its side, upside-down or with the screen facing up or down, to avoid combustion or electric shock.

Plasma monitor cleaning procedure:

1. Use a soft dry cloth to clean the front panel and bezel area. Never use solvents such as alcohol or thinner to clean these surfaces.
2. Clean plasma ventilation areas with a vacuum cleaner with a soft brush nozzle attachment.
3. To ensure proper ventilation, cleaning of the ventilation areas must be carried out monthly. More frequent cleaning may be necessary depending on the environment in which the plasma monitor is installed.

Recommendations to avoid or minimize phosphor burn-in:

Like all phosphor-based display devices and all other gas plasma displays, plasma monitors can be susceptible to phosphor burn under certain circumstances. Certain operating conditions, such as the continuous display of a static image over a prolonged period of time, can result in phosphor burn if proper precautions are not taken. To protect your investment in this plasma monitor, please adhere to the following guidelines and recommendations for minimizing the occurrence of image burn:

- * Always enable and use your computer's screen saver function during use with a computer input source.
- * Display a moving image whenever possible.
- * Change the position of the menu display from time to time.
- * Always power down the monitor when you are finished using it.

If the plasma monitor is in long term use or continuous operation take the following measures to reduce the likelihood of phosphor burn:

- * Lower the Brightness and Contrast levels as much as possible without impairing image readability.
- * Display an image with many colors and color gradations (i.e. photographic or photo-realistic images).
- * Create image content with minimal contrast between light and dark areas, for example white characters on black backgrounds. Use complementary or pastel color whenever possible.
- * Avoid displaying images with few colors and distinct, sharply defined borders between colors.

* Note: Burn-in is not covered by the warranty.

Contact your dealer for other recommended procedures that will best suit your particular application needs.

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Troubleshooting E-29



Contents of the Package

- ☐ Plasma monitor
- ☐ Power cord
- ☐ Remote control with two AAA Batteries
- ☐ Manuals (Model Information and Operation)
- ☐ Safety metal fittings*
- ☐ Ferrite cores, bands
- ☐ Cable clamps
- ☐ HDMI-DVI cable

* Contents will differ according to the model.

* These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws (see page E-4).

Options

- Wall mount unit
- Ceiling mount unit
- Tilt mount unit
- Stand
- Attachable speakers

Installation

You can attach your optional mounts or stand to the plasma monitor in one of the following two ways:

- * While it is upright. (See Drawing A)
- * As it is laid down with the screen face down (See Drawing B). Lay the protective sheet, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.
- * Do not touch or hold the screen face when carrying the unit.

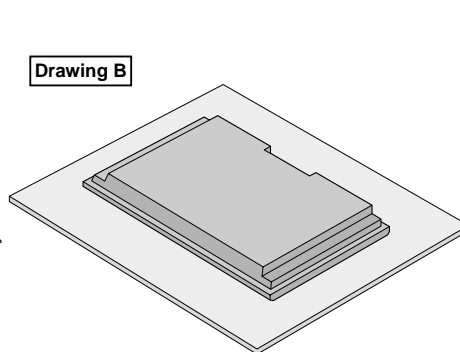
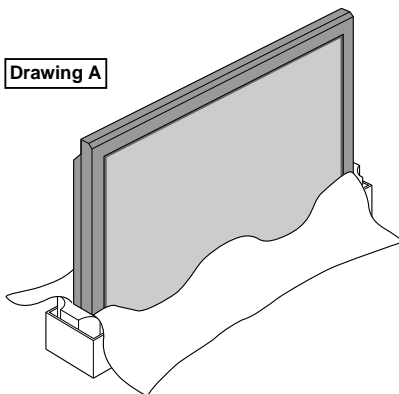
• **This device cannot be installed on its own. Be sure to use a stand or original mounting unit. (Wall mount unit, Stand, etc.)**

* See page E-3.

• **For correct installation and mounting it is strongly recommended to use a trained, authorized dealer.**

Failure to follow correct mounting procedures could result in damage to the equipment or injury to the installer.

Product warranty does not cover damage caused by improper installation.

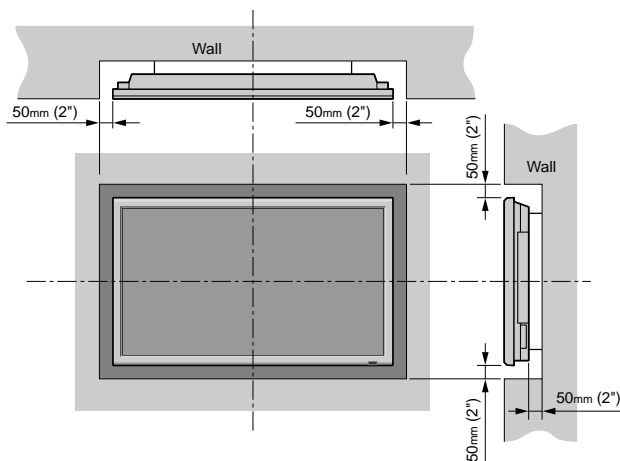


When installing or carrying, use the handles attached to the upper back of the display.



Ventilation Requirements for enclosure mounting

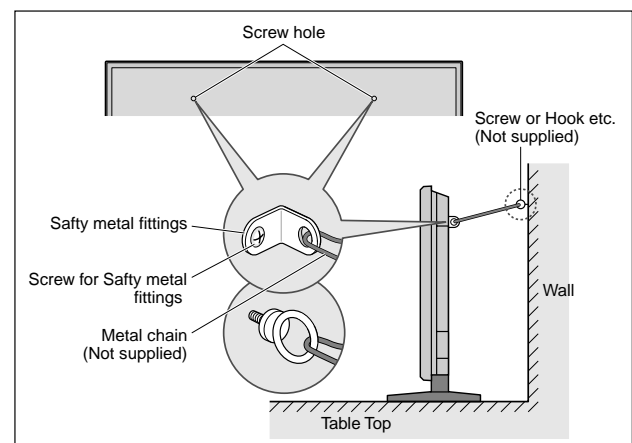
To allow heat to disperse, leave space between surrounding objects as shown on the diagram below when installing.



How to use the safety metal fittings and the screws for safety metal fittings

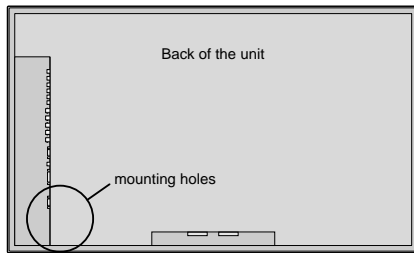
These are fittings for fastening the unit to a wall to prevent tipping due to external shock when using the stand (optional). Fasten the safety fittings to the holes in the back of the monitor using the safety fitting mount screws.

* Safety metal fittings will differ according to the model.

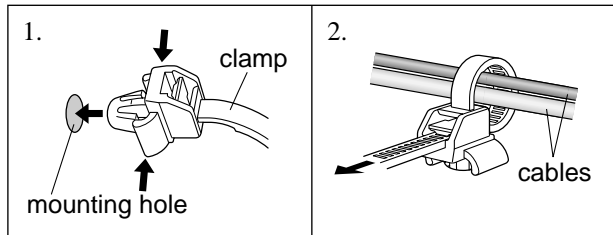


Cable Management

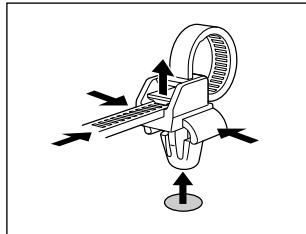
Using the cable-clamps provided with the plasma display, bundle at the back of the unit the signal and audio cables connected to the display.



To attach



To detach

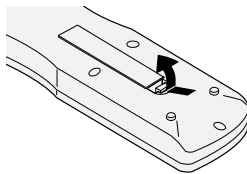


How to use the remote control

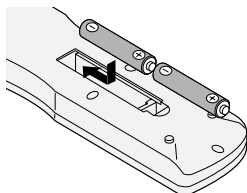
Battery Installation and Replacement

Insert the 2 “AAA” batteries, making sure to set them in with the proper polarity.

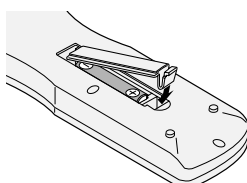
1. Press and open the cover.



2. Align the batteries according to the (+) and (–) indication inside the case.

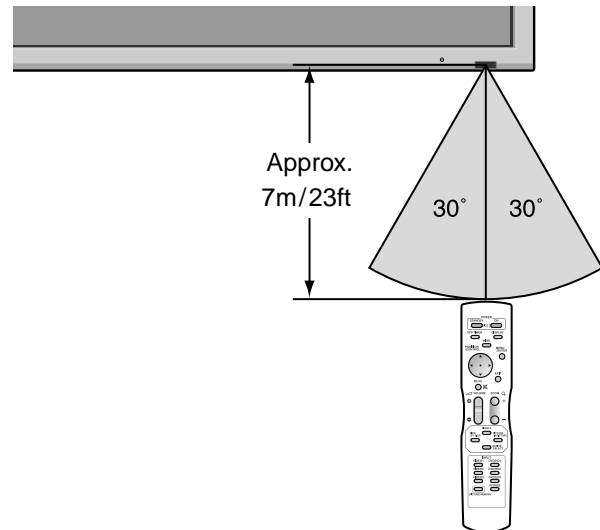


3. Replace the cover.



Operating Range

- * Use the remote control within a distance of about 7 m/ 23ft. from the front of the monitor’s remote control sensor and at horizontal and vertical angles of up to approximately 30°.
- * The remote control operation may not function if the monitor’s remote control sensor is exposed to direct sunlight or strong artificial light, or if there is an obstacle between the sensor and the remote control.

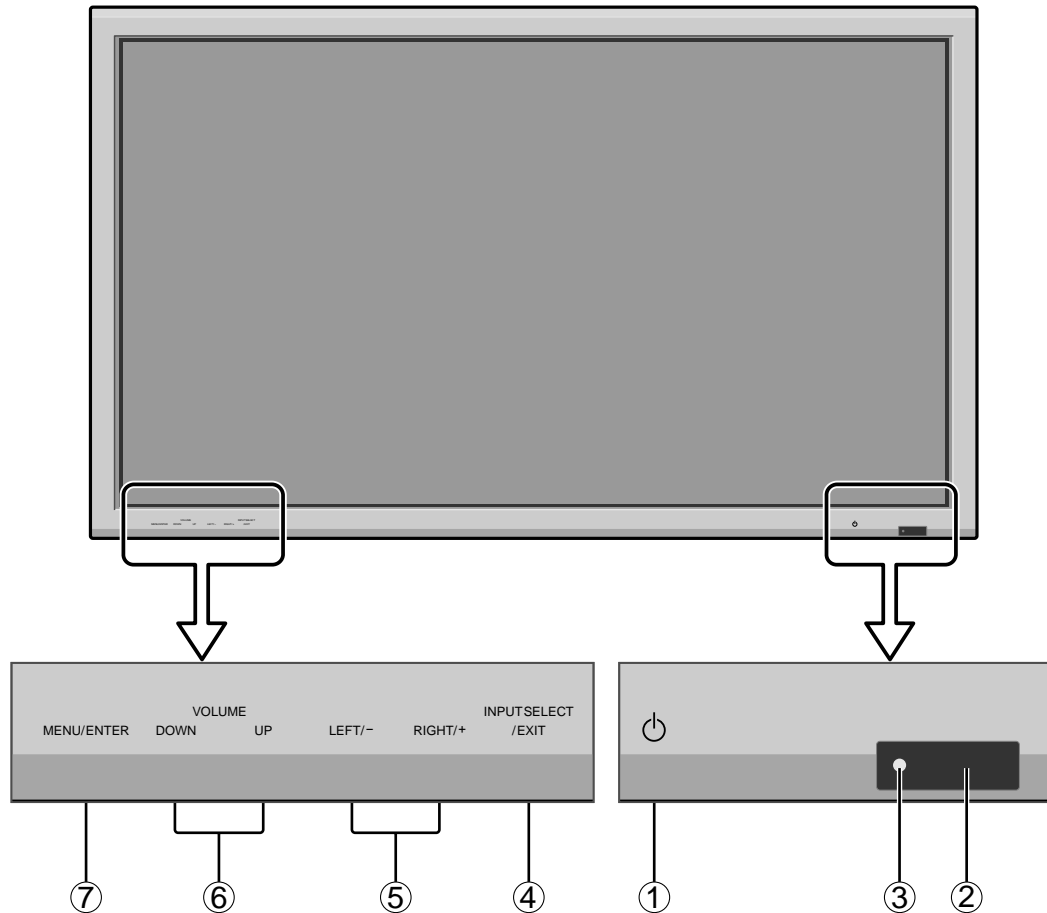


Handling the remote control

- Do not drop or mishandle the remote control.
- Do not get the remote control wet. If the remote control gets wet, wipe it dry immediately.
- Avoid heat and humidity.
- When not using the remote control for a long period, remove the batteries.
- Do not use new and old batteries together, or use different types together.
- Do not take apart the batteries, heat them, or throw them into a fire.

Part Names and Function

Front View



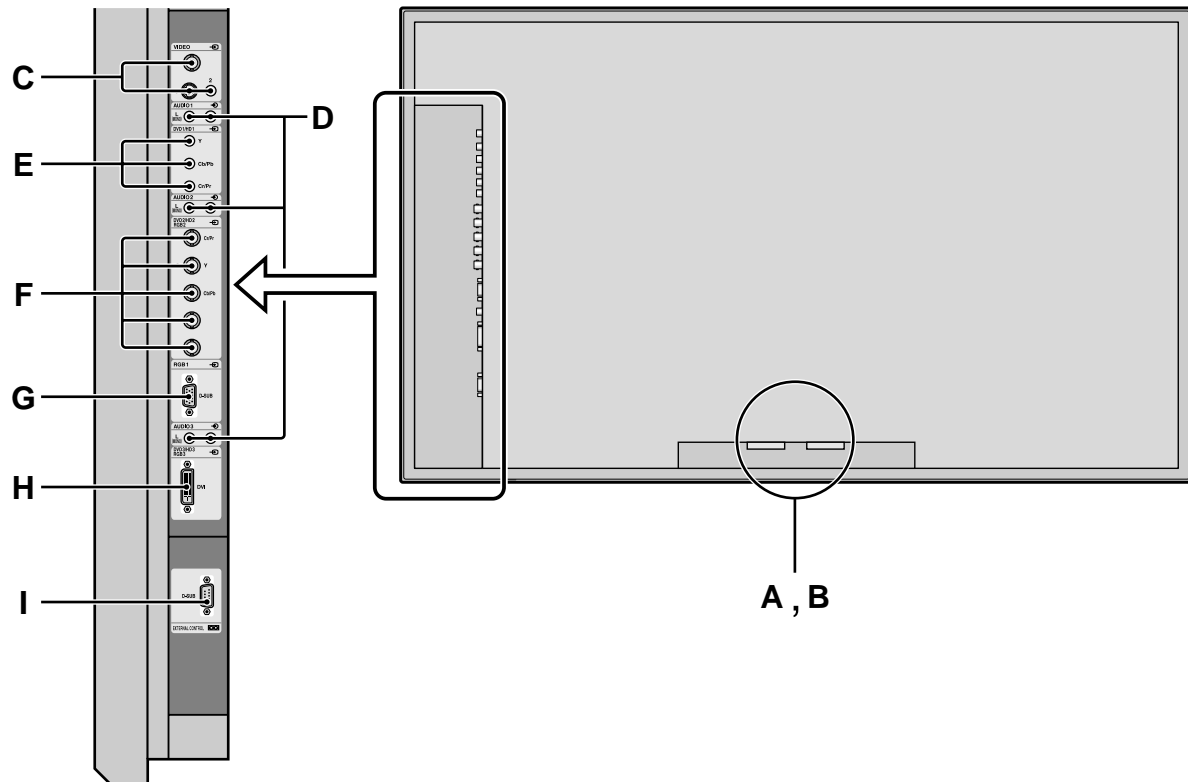
- ① **Power**
Turns the monitor's power on and off.
- ② **Remote sensor window**
Receives the signals from the remote control.
- ③ **POWER/STANDBY indicator**
When the power is on Lights green.
When the power is in the standby mode ... Lights red.
- ④ **INPUT SELECT / EXIT**
Switches the input.
The available inputs depend on the setting of "BNC INPUT", "D-SUB INPUT", "RGB SELECT" and "DVI SET UP".
Functions as the EXIT buttons in the On-Screen Menu (OSM) mode.
- ⑤ **LEFT/~ and RIGHT/+**
Enlarges or reduces the image. Functions as the CURSOR (◀/▶) buttons in the On-Screen Menu (OSM) mode.
- ⑥ **VOLUME DOWN and UP**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Menu (OSM) mode.
- ⑦ **MENU/ENTER**
Sets the On-Screen Menu (OSM) mode and displays the main menu.

WARNING

The Power on/off switch does not disconnect the plasma display completely from the supply mains.

Note: This plasma monitor has the capacity to display images when connected to European DVD players with a SCART output signal, which is RGB with composite sync.
Your dealer can supply a special SCART cable, which will enable you to use the RGB with composite sync signal.
To obtain the special cable as well as for further information, please contact your dealer.
Please refer to page E-21 for selection of the correct mode in the on-screen manager.

Rear View/ Terminal Board



A AC IN

Connect the included power cord here.

B EXT SPEAKER L and R

Connect speakers (optional) here. Maintain the correct polarity. Connect the \oplus (positive) speaker wire to the \oplus EXT SPEAKER terminal and the \ominus (negative) speaker wire to the \ominus EXT SPEAKER terminal on both LEFT and RIGHT channels.

Please refer to your speaker's owner's manual.

C VIDEO1, 2, 3 (BNC, RCA, S-Video)

Connect VCR's, DVD's or Video Cameras, etc. here.

D AUDIO1, AUDIO2, AUDIO3

These are audio input terminals.

The input is selectable. Set which video image to allot them from the audio menu screen.

E DVD1 / HD1

Connect DVD's, High Definition or Laser Discs, etc. here.

F DVD2/ HD2, RGB2

DVD2/ HD2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.

This input can be set for use with an RGB or component source. (see page E-21)

RGB2: You can connect an analog RGB signal and the synchronization signal.

G RGB1 (D-Sub)

Connect an analog RGB signal from a computer, etc. here.

H DVD3/HD3, RGB3 (DVI)

Connect a digital signal (TMDS) from a source with a DVI output.

This input can be set for use with an RGB3 or DVD3/HD3 source. (see page E-22)

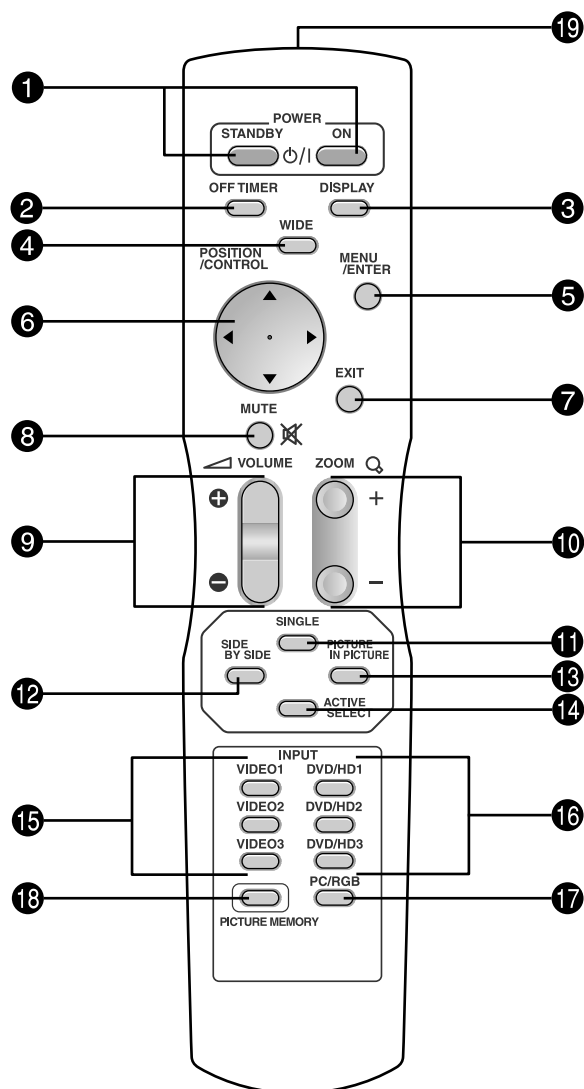
I EXTERNAL CONTROL (D-Sub)

This terminal is used when operating and controlling the monitor externally (by RS-232C).

Information

- For Y/CB/Cr, connect to the DVD1 or DVD2 terminals.
- For SCART, this unit provides three ways to connect:
 - SCART1: Connect R/G/B to the DVD2 terminals and composite sync. to the HD terminal.
 - SCART2: Connect R/G/B to the DVD2 terminals and composite sync. to the VIDEO1 terminal.
 - SCART3: Connect R/G/B + composite sync. to the RGB1 terminal.

Remote Control



1 POWER ON/STANDBY

Switches the power on/standby.
(This does not operate when POWER/STANDBY indicator of the main unit is off.)

2 OFF TIMER

Activates the off timer for the unit.

3 DISPLAY

Displays the source settings on the screen.

4 WIDE

Automatically detects the signal and sets the aspect ratio.
Wide button is not active for all signals.

5 MENU/ENTER

Press this button to access the OSM controls.
Press this button during the display of the main menu to go to the sub menu.

6 CURSOR (▲ / ▼ / ◀ / ▶)

Use these buttons to select items or settings and to adjust settings or switch the display patterns.

7 EXIT

Press this button to exit the OSM controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.

8 MUTE

Mutes the audio.

9 VOLUME (+ / -)

Adjusts the audio volume.

10 ZOOM (+ / -)

Enlarges or reduces the image.

11 SINGLE

Cancels the split screen mode.

12 SIDE BY SIDE

Press this button to show a couple of pictures in the side-by-side mode.

13 PICTURE IN PICTURE

Press this button to show a couple of pictures in the picture-in-picture mode.

14 ACTIVE SELECT

Press this button to make the desired picture activate during split screen mode.
When the PICTURE FREEZE function is operating, this button can be used to display still images on the sub screen.

15 VIDEO1, 2, 3

Press this button to select VIDEO as the source.
VIDEO can also be selected using the INPUT SELECT button on the monitor.

16 DVD/HD1, 2, 3

Press this button to select DVD/HD as the source.
DVD/HD can also be selected using the INPUT SELECT button on the monitor.

17 PC/RGB

Press this button to select PC/RGB as the source.
PC/RGB can also be selected using the INPUT SELECT button on the monitor.

18 PICTURE MEMORY

Switches sequentially between picture memory settings 1 to 6.

19 Remote control signal transmitter

Transmits the remote control signals.

Basic Operations

POWER

To turn the unit ON and OFF:

1. Plug the power cord into an active AC power outlet.
2. Press the Power button (on the unit).
The monitor's POWER/STANDBY indicator turns red and the standby mode is set.
3. Press the POWER ON button (on the remote control) to turn on the unit.
The monitor's POWER/STANDBY indicator will light up (green) when the unit is on.
4. Press the POWER STANDBY button (on the remote control) or the Power button (on the unit) to turn off the unit.
The monitor's POWER/STANDBY indicator turns red and the standby mode is set (only when turning off the unit with the remote control).

VOLUME

To adjust the sound volume:

1. Press and hold the VOLUME \oplus button (on the remote control or the unit) to increase to the desired level.
2. Press and hold the VOLUME \ominus button (on the remote control or the unit) to decrease to the desired level.

MUTE

To mute the audio:

Press the MUTE button on the remote control to mute the audio; press again to restore.


DISPLAY

To check the settings:

1. The screen changes each time the DISPLAY button is pressed.
2. If the button is not pressed for approximately three seconds, the menu turns off.

DIGITAL ZOOM

Digital zoom specifies the picture position and enlarges the picture.

1. (Be sure ZOOM NAV is off.)
Press the ZOOM (+ or -) button to display magnifying glass. ()

To change the size of the picture:

Press the ZOOM+ button and enlarge the picture.
A press of the ZOOM- button will reduce the picture and return it to its original size.

To change the picture position:

Select the position with the \blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright buttons.

2. Press the EXIT button to delete the pointer.

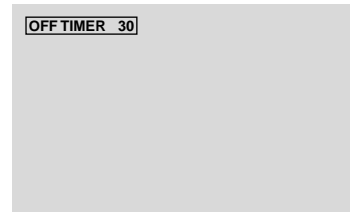
OFF TIMER

To set the off timer:

The off timer can be set to turn the power off after 30, 60, 90 or 120 minutes.

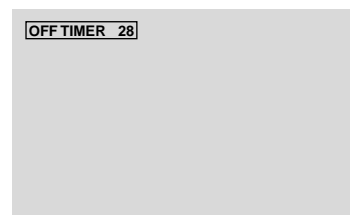
1. Press the OFF TIMER button to start the timer at 30 minutes.
2. Press the OFF TIMER button to the desired time.
3. The timer starts when the menu turns off.

→ 30 → 60 → 90 → 120 → 0



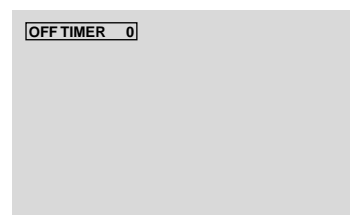
To check the remaining time:

1. Once the off timer has been set, press the OFF TIMER button once.
2. The remaining time is displayed, then turns off after a few seconds.
3. When five minutes remain the remaining time appears until it reaches zero.



To cancel the off timer:

1. Press the OFF TIMER button twice in a row.
2. The off timer is canceled.



Note:

After the power is turned off with the off timer ...
A slight current is still supplied to the monitor. When you are leaving the room or do not plan to use the system for a long period of time, turn off the power of the monitor.

WIDE Operations

Wide Screen Operation (manual)

With this function, you can select one of six screen sizes.

When viewing videos or digital video discs

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

The screen size switches as follows:

→ NORMAL → ANAMORPHIC → STADIUM → ZOOM → 2.35:1 → 14:9 →

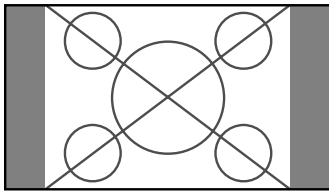
When a 720P or 1080I signal is input:

ANAMORPHIC ↔ 2.35:1

When displaying enhanced split screen:

NORMAL ↔ ANAMORPHIC

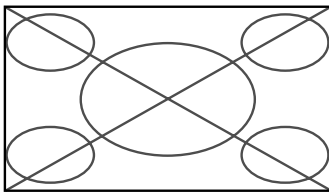
NORMAL size screen (4:3)



The normal size screen is displayed.

- * The picture has the same size as video pictures with a 4 : 3 aspect ratio.

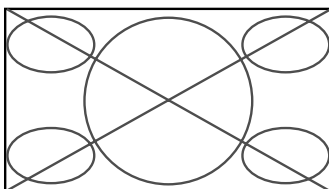
ANAMORPHIC size screen



The image is expanded in the horizontal direction.

- * Images compressed in the horizontal direction ("squeezed images") are expanded in the horizontal direction and displayed on the entire screen with correct linearity. (Normal images are expanded in the horizontal direction.)

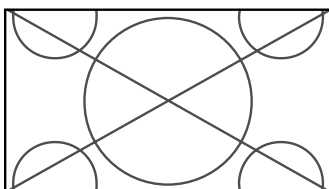
STADIUM size screen



The picture is expanded in the horizontal and vertical directions at different ratios.

- * Use this for watching normal video programs (4:3) with a wide screen.

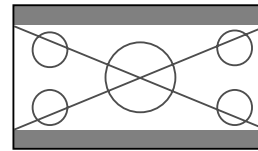
ZOOM size screen



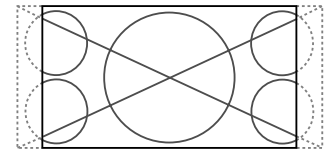
The picture is expanded in the horizontal and vertical direction, maintaining the original proportions.

- * Use this for theater size (wide) movies, etc.

2.35:1 size screen



Original image



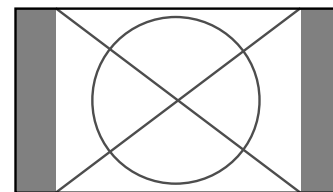
Information is lost on both sides.

The squeezed film image is expanded to fulfill the entire screen at a ratio of 2.35:1. Black bands do not appear at the top and bottom but information is lost on the left and right margins.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P, 720P, 1080I) or RGB (525P or 625P signal from a scan converter).

- * If black bands appear on the top and bottom in the full size screen, select the 2.35:1 size screen to avoid phosphor burn-in.

14:9 size screen



The image is displayed at a 14:9 aspect ratio.

- * This feature is available when the input signal is video, component (480I, 480P, 576I, 576P) or RGB (525P or 625P signal from a scan converter).

Note:

Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

Wide Screen Operation with Computer Signals

Switch to the wide screen mode to expand the 4 : 3 image to fill the entire screen.

1. Press the WIDE button on the remote control.
2. *Within 3 seconds ...*

Press the WIDE button again.

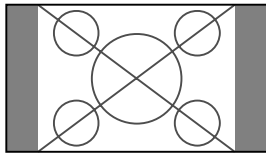
The screen size switches as follows:

→ **NORMAL** → **ANAMORPHIC** → **ZOOM** →

When displaying enhanced split screen:

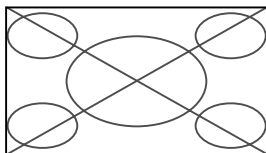
NORMAL ↔ **ANAMORPHIC**

NORMAL size screen (4:3 or SXGA 5:4)



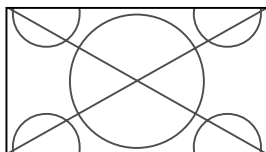
The picture has the same size as the normal computer image.

ANAMORPHIC size screen



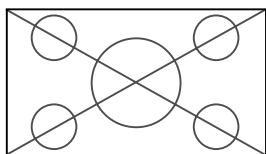
The image is expanded in the horizontal direction.

ZOOM size screen



When wide signals are input.

ANAMORPHIC size screen



Information

■ Supported resolution

See page E-2 of Model Information for details on the display output of the various VESA signal standards supported by the monitor.

■ **When 852 (848) dot × 480 line wide VGA* signals with a vertical frequency of 60 Hz and horizontal frequency of 31.7 (31.0) kHz are input**

Select an appropriate setting for RGB SELECT mode referring to the "Table of Signals Supported" on page E-2 of Model Information.

* "VGA", "SVGA" and "SXGA" are registered trademarks of IBM, Inc. of the United States.

Note:

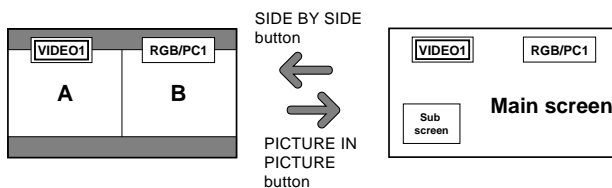
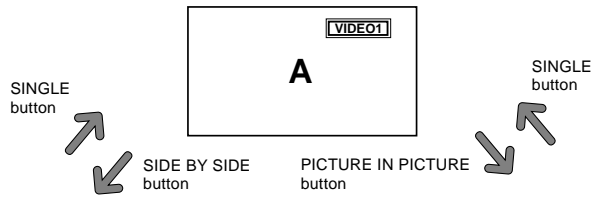
Do not allow the displayed in 4:3 mode for an extended period. This can cause a phosphor burn-in.

SPLIT SCREEN Operations

Showing a couple of pictures on the screen at the same time

* An RGB-input picture may not be displayed in these modes, depending on the input signal specifications.

1. Press the button to select a screen mode from among single mode, side-by-side, and picture-in-picture.



Note:

Picture A and B on the above screen are not always of the same height.

Information

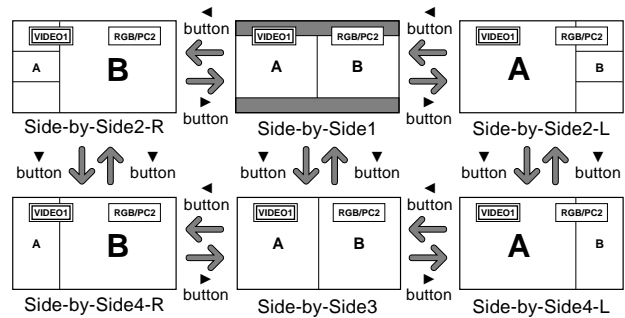
Split screen operations may not function depending on the combination of input signals. In the table below, "○" means Yes, "×" means No.

	Pictures displayed on the right/main screen (Select1)							
	VIDEO1	VIDEO2	VIDEO3	HD/DVD1	HD/DVD2 RGB2	RGB/PC1	HD/DVD3 RGB3	SCART1-3
Pictures displayed on the left/sub screen (Select2)								
VIDEO1	×	×	×	○	○	○	○	×
VIDEO2	×	×	×	○	○	○	○	×
VIDEO3	×	×	×	○	○	○	○	×
HD/DVD1	○	○	○	×	○	○	○	○
HD/DVD2	○	○	○	○	×	○	○	1.2:×
RGB2	○	○	○	○	○	×	○	3:○
RGB/PC1	○	○	○	○	○	×	○	1.2:○
HD/DVD3	○	○	○	○	○	○	×	3:×
RGB3	○	○	○	○	○	○	×	○
SCART1-3	×	×	×	○	1.2:×	1.2:○	○	×
					3:○	3:×		

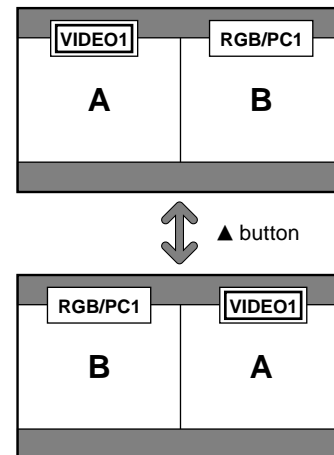
■ Split screen operations may not function depending on the type of the RGB signals.

Operations in the Side-by-side mode

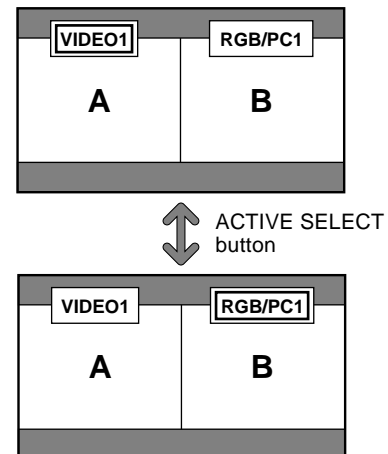
To change the picture size, press the cursor ◀▶ or ▼ button.



To swap the picture on the right and the left, press the cursor ▲ button.

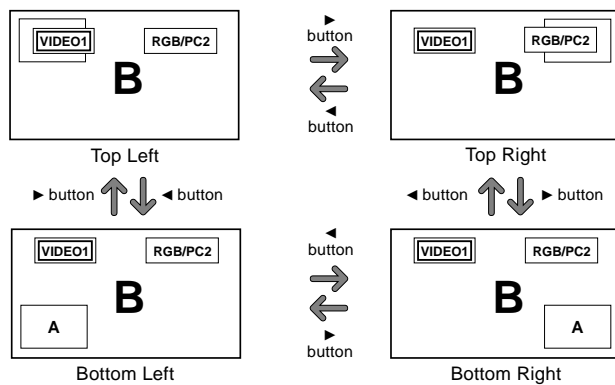


To make the desired picture active, press the ACTIVE SELECT button.

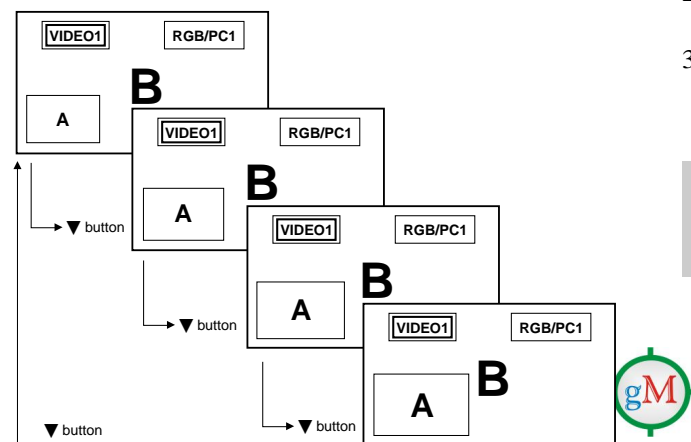


Operations in the Picture-in-picture mode

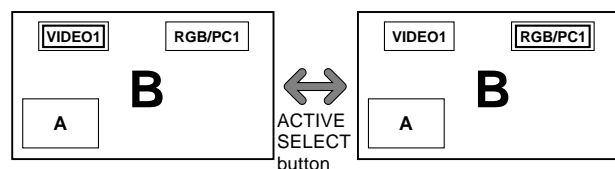
To move the position of the sub screen, press the cursor ◀ or ▶ button.



To change the size of the sub screen, press the ▼ button.



To make the desired picture active, press the ACTIVE SELECT button.



Selecting the input signals to be displayed

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Press the PC/RGB, VIDEO1, 2, 3, or DVD/HD1, 2, 3 button to change the selection of the input signal. The INPUT SELECT button on the monitor can also be used to change the selection.

Zooming up pictures

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Use the ZOOM (+ or -) button to enlarge the picture. For details, see "DIGITAL ZOOM" on page E-9.

Adjusting the OSM controls

1. Press the ACTIVE SELECT button to make the desired picture active.
2. Press the MENU/ENTER button to display the MAIN MENU.
3. Adjust the setting to your preference. For details, see "OSM (On Screen Menu) Controls" on page E-14.

Note:

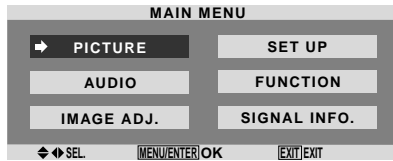
During enhanced split screen, some functions of OSM controls are not available.

OSM (On Screen Menu) Controls

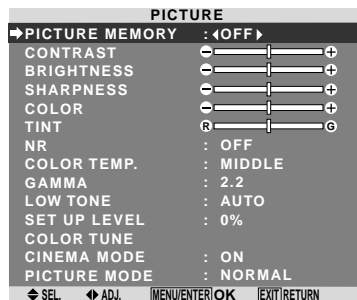
Menu Operations

The following describes how to use the menus and the selected items.

1. Press the MENU/ENTER button on the remote control to display the MAIN MENU.



2. Press the cursor buttons ▲ ▼ on the remote control to highlight the menu you wish to enter.
3. Press the MENU/ENTER button on the remote control to select a sub menu or item.




4. Adjust the level or change the setting of the selected item by using the cursor buttons ◀ ▶ on the remote control.



5. The adjustments or the settings that are stored in memory. The change is stored until you change it again.
 6. Repeat steps 2 – 5 to adjust an additional item, or press the EXIT button on the remote control to return to the main menu.
- * When adjusting using the bar at the bottom of the screen, press the ◀ or ▶ button within 5 seconds. If not, the current setting is set and the previous screen appears.

Note: The main menu disappears by pressing the EXIT button.

Menu Tree

 : Shaded areas indicate the default value.

— ◀ → + : Press the ◀ or ▶ button to adjust. The default value is at the center.

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
PICTURE	PICTURE MEMORY	OFF/MEMORY1-6			NO	E-17
	CONTRAST	— ◀ → + 0◀52→72			YES	E-17
	BRIGHTNESS	— ◀ → + 0◀32→64			YES	E-17
	SHARPNESS	— ◀ → + 0◀16→32			YES	E-17
	COLOR	— ◀ → + 0◀32→64			YES	E-17
	TINT	R◀→G 0◀32→64			YES	E-17
	NR	OFF/NR-1/NR-2/NR-3			YES	E-17
	COLOR TEMP.	LOW/MIDDLE LOW/MIDDLE/HIGH			YES	E-18
	WHITE BALANCE	GAIN RED	— ◀ → + 0◀→70		YES	E-18
		GAIN GREEN	— ◀ → + 0◀→70		YES	E-18
		GAIN BLUE	— ◀ → + 0◀→70		YES	E-18
		BIAS RED	— ◀ → + 0◀→70		YES	E-18
		BIAS GREEN	— ◀ → + 0◀→70		YES	E-18
		BIAS BLUE	— ◀ → + 0◀→70		YES	E-18
		RESET	OFF◀→ON		YES	E-18
	GAMMA	2.1◀2.2→2.3→2.4			YES	E-18
	LOW TONE	AUTO◀→1◀→3			YES	E-18
	SET UP LEVEL	0%◀→3.75%◀→7.5%			YES	E-19
	COLOR TUNE	RED	Y◀→M 0◀→64		YES	E-19
		GREEN	C◀→Y 0◀→64		YES	E-19
		BLUE	M◀→C 0◀→64		YES	E-19
		YELLOW	G◀→R 0◀→64		YES	E-19
		MAGENTA	R◀→B 0◀→64		YES	E-19
		CYAN	B◀→G 0◀→64		YES	E-19
		RESET	OFF◀→ON		YES	E-19
	CINEMA MODE	ON◀→OFF			YES	E-19
	PICTURE MODE	DEFAULT/THEATER1/THEATER2/NORMAL/BRIGHT			YES	E-19

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
AUDIO	BASS	— ◀ → + 0◀13→26			YES	E-20
	TREBLE	— ◀ → + 0◀13→26			YES	E-20
	BALANCE	L◀→R -22◀0→+22			YES	E-20
	AUDIO INPUT1	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-20
	AUDIO INPUT2	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-20
	AUDIO INPUT3	VIDEO 1-3 / HD/DVD 1-3 / RGB 1-3			YES	E-20

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
IMAGE ADJUST	ASPECT MODE	ZOOM/NORMAL/ANAMORPHIC/STADIUM/14:9/2.35:1			NO	E-20
	V-POSITION	— ◀ → + -64◀0→+64			YES	E-20
	H-POSITION	— ◀ → + -128◀0→+127			YES	E-20
	V-HEIGHT	— ◀ → + 0◀→64			YES	E-20
	H-WIDTH	— ◀ → + 0◀→64			YES	E-20
	AUTO PICTURE	ON◀→OFF*2			NO	E-20
	FINE PICTURE*1	— ◀ → + *2 0◀→64			YES	E-20
	PICTURE ADJ.*1	— ◀ → + *2 0◀→128			YES	E-20

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
SET UP	LANGUAGE	ENGLISH/DEUTSCH/FRANÇAIS/ESPAÑOL/ITALIANO/SVENSKA/中文/РУССКИЙ			NO	E-21
	BNC INPUT	RGB◀→COMPONENT◀→SCART1◀→SCART2			YES	E-21
	D-SUB INPUT	RGB◀→SCART3			YES	E-21
	HD SELECT	1080I/1035I/540P			NO	E-21
	RGB SELECT	AUTO/STILL/MOTION/WIDE1/WIDE2/WIDE3/DTV			YES	E-21
	DVI SET UP	PLUG/PLAY	PC◀→STB/DVD		NO	E-22
		BLACK LEVEL	LOW◀→HIGH		NO	E-22
		COLOR SYSTEM	AUTO/PAL/PAL-M/PAL-N/PAL 60/SECAM/4.43 NTSC/3.58NTSC		NO	E-22
	BACK GROUND	BLACK/GRAY			YES	E-22
	GRAY LEVEL	0◀→3◀→15			YES	E-23
	S1/S2	AUTO◀→OFF			YES	E-23
	DISPLAY OSM	ON◀→OFF			YES	E-23
	OSM ADJ.	TOP LEFT◀→TOP CENTER◀→TOP RIGHT◀→BTM LEFT◀→BTM CENTER◀→BTM RIGHT			YES	E-23
	ALL RESET	ON◀→OFF			—	E-23

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
FUNCTION	POWER MGT.	ON↔OFF			YES	E-24
	INPUT SKIP	ON↔OFF			YES	E-24
	SUB. P DETECT	AUTO↔OFF			YES	E-24
	ZOOM NAV	OFF↔S BY S↔BTM LEFT↔BTM RIGHT↔TOP RIGHT↔TOP LEFT			YES	E-25
	PICTURE FREEZE	OFF↔S BY S1↔S BY S2↔BTM LEFT↔BTM RIGHT↔TOP RIGHT↔TOP LEFT			YES	E-25
	PDP SAVER	MANUAL/AUTO			YES	E-25
	PEAK BRIGHT	100%/75%/50%/25%			YES	E-26
	ORBITER	OFF/AUTO1/AUTO2			YES	E-26
	INVERSE/WHITE	OFF/INVERSE/WHITE			YES	E-26
	SCREEN WIPER	ON/OFF			YES	E-26
	SOFT FOCUS	OFF/LEVEL1-4			YES	E-27
	OSM ORBITER	ON/OFF			YES	E-27
	OSM CONTRAST	LOW/NORMAL			YES	E-27

Main menu	Sub menu	Sub menu 2	Sub menu 3	Sub menu 4	RESET	REFERENCE
SIGNAL INFO.					—	E-27

*1 Only when AUTO PICTURE is OFF.

*2 RGB/PC only

Information

■ Restoring the factory default settings

Select “ALL RESET” under the SET UP menu. Note that this also restores other settings to the factory defaults.

Picture Settings Menu

Storing picture settings

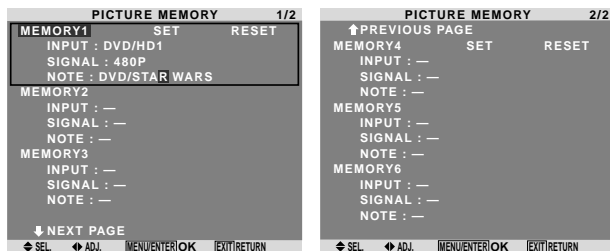
This function allows you to store in memory the current input signal and PICTURE menu settings and to recall these settings when necessary.

There are six picture memories, and notes of up to 15 characters can be added to each.

Example: Storing picture settings at MEMORY1

On “PICTURE MEMORY” of “PICTURE” menu, select “MEMORY1”, then press the MENU/ENTER button.

The “PICTURE MEMORY” screen appears.



Information

■ PICTURE MEMORY Settings

OFF: Picture memory not used.

MEMORY1 to 6: Picture memory with the specified number used. Maximum memories are 6, not depending on inputs.

■ Setting the memory

- Use the ▲ and ▼ button to select the desired memory place, MEMORY1 to MEMORY6.
- Use the ◀ and ▶ buttons to select “SET”, then press the MENU/ENTER button.
- If necessary, input a note.

■ Resetting the memory

Use the ▲ and ▼ button to select the desired memory place, MEMORY1 to MEMORY6, then use the ◀ and ▶ buttons to select “RESET”, and finally press the MENU/ENTER button.

The memory is cleared, and “—” is displayed in the “INPUT”, “SIGNAL” and “NOTE” columns.

■ Inputting notes

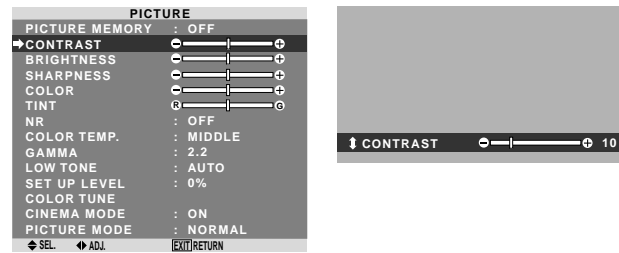
- Use the ◀ and ▶ buttons to select “NOTE”, then press the MENU/ENTER button.
- Input the note.
 - Use the ▲ and ▼ button to select the character.
 - Use the ◀ and ▶ buttons to move the cursor.
 - Use the EXIT button to delete the character at the cursor position.
- When you have finished inputting the note, press the MENU/ENTER button.

Adjusting the picture

The contrast, brightness, sharpness, color and tint can be adjusted as desired.

Example: Adjusting the contrast

On “CONTRAST” of “PICTURE” menu, adjust the contrast.



Note: If “CAN NOT ADJUST” appears ...

When trying to enter the PICTURE submenu, make sure PICTURE MODE is not set to DEFAULT.

Information

■ Picture adjustment screen

CONTRAST: Changes the picture’s white level.

BRIGHTNESS: Changes the picture’s black level.

SHARPNESS: Changes the picture’s sharpness.

Adjusts picture detail of VIDEO display.

COLOR: Changes the color density.

TINT: Changes the picture’s tint. Adjust for natural colored skin, background, etc.

■ Adjusting the computer image

Only the contrast and brightness can be adjusted when a computer signal is connected.

■ Restoring the factory default settings

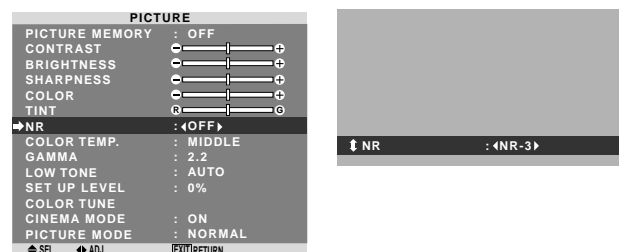
Select “DEFAULT” under the “PICTURE MODE” settings.

Reducing noise in the picture

Use these settings if the picture has noise due to poor reception or when playing video tapes on which the picture quality is poor.

Example: Setting “NR-3”

On “NR” of “PICTURE” menu, select “NR-3”.



Information

■ NR

* “NR” stands for Noise Reduction.

* This function reduces noise in the picture.

■ Types of noise reduction

There are three types of noise reduction. Each has a different level of noise reduction.

The effect becomes stronger as the number increases (in the order NR-1 → NR-2 → NR-3).

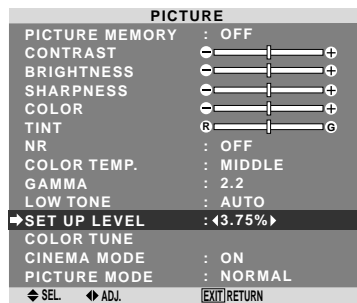
OFF: Turns the noise reduction function off.

Adjusting the pedestal level (black level)

This feature adjusts the video black level in a video image.

Example: Setting “3.75%”

On “SET UP LEVEL” of “PICTURE” menu, select “3.75%”.



Information

■ SET UP LEVEL settings

0%: Normal status

3.75%: 3.5% lower than normal

7.5%: 7.5% lower than normal

Adjusting the colors

Use this procedure to adjust hue and color density for red, green, blue, yellow, magenta and cyan.

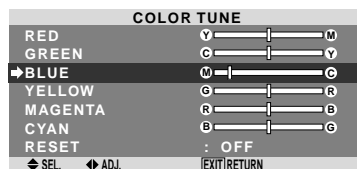
You can accentuate the green color of trees, the blue of the sky, etc.

Example: Adjusting the color tune for blue

On “PICTURE” menu, select “COLOR TUNE”, then press the MENU/ENTER button.

The “COLOR TUNE” screen appears.

On “BLUE” of “COLOR TUNE”, adjust the color tune.



Information

■ COLOR TUNE settings

RED: Makes red's adjustment

GREEN: Makes green's adjustment

BLUE: Makes blue's adjustment

YELLOW: Makes yellow's adjustment

MAGENTA: Makes magenta's adjustment

CYAN: Makes cyan's adjustment

RESET: Resets settings to the factory default value.

Use ◀ and ▶ buttons to select “ON”, then press the MENU/ENTER button.

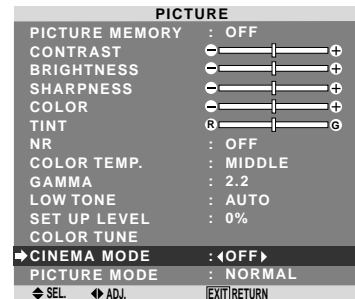
Setting the picture to suit the movie

The film image is automatically discriminated and projected in an image mode suited to the picture.

[NTSC, PAL, PAL60, 480I (60Hz), 525I (60Hz), 576I (50Hz), 625I (50Hz), 1035I (60Hz), 1080I (60Hz) only]

Example: Setting the “CINEMA MODE” to “OFF”

On “CINEMA MODE” of “PICTURE” menu, select “OFF”.



Information

■ CINEMA MODE

ON: Automatic discrimination of the image and projection in cinema mode.

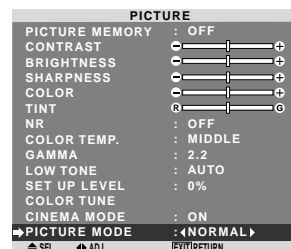
OFF: Cinema mode does not function.

Setting the picture mode according to the brightness of the room

There are four picture modes that can be used effectively according to the environment in which you are viewing the display.

Example: Setting the “THEATER1” mode

On “PICTURE MODE” of “PICTURE” menu, select “THEATER1”.



Information

■ Types of picture modes

THEATER1, 2: Set this mode when watching video in a dark room.

This mode provides darker, finer pictures, like the screen in movie theaters.

For a darker image, select THEATER2.

NORMAL: Set this mode when watching video in a bright room.

This mode provides dynamic pictures with distinct differences between light and dark sections.

BRIGHT: This mode provides brighter pictures than NORMAL.

DEFAULT: Use this to reset the picture to the factory default settings.

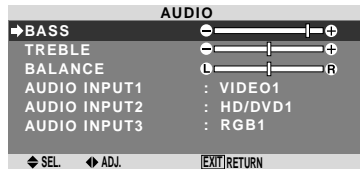
Audio Settings Menu

Adjusting the treble, bass and left/right balance and audio input select

The treble, bass and left/right balance can be adjusted to suit your tastes.

Example: Adjusting the bass

On “BASS” of “AUDIO” menu, adjust the bass.



Note : If “CAN NOT ADJUST” appears...
Set “AUDIO INPUT” on the AUDIO menu correctly.

Information

■ Audio settings menu

BASS: Controls the level of low frequency sound.
TREBLE: Controls the level of high frequency sound.
BALANCE: Controls the balance of the left and right channels.

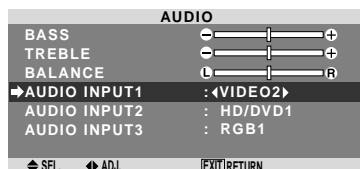
Setting the allocation of the audio connectors

Setting the AUDIO 1, 2, and 3 connectors to the desired input.

Example: Setting “AUDIO INPUT1” to “VIDEO 2”

On “AUDIO INPUT1” of “AUDIO” menu, select “VIDEO2”.

The available sources depend on the settings of input.



Information

■ AUDIO INPUT

A single audio input cannot be selected as the audio channel for more than one input terminal.

Image Adjust Settings Menu

Adjusting the Position, Size, Fine Picture, Picture Adj

The position of the image can be adjusted and flickering of the image can be corrected.

Example: Adjusting the vertical position in the normal mode

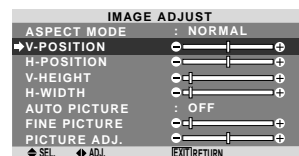
On “V-POSITION” of “IMAGE ADJUST” menu, adjust the position.

The mode switches as follows each time the ◀ or ▶ button is pressed:

NORMAL ↔ ANAMORPHIC

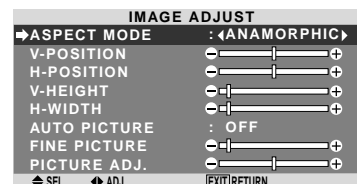
* The mode can also be switched by pressing the WIDE button on the remote control.

* The settings on the IMAGE ADJUST menu are not preset at the factory.



Information

■ When “AUTO PICTURE” is “OFF”



When Auto Picture is off, the Fine Picture and the Picture ADJ. items are displayed so that you can adjust them.

■ Adjusting the Auto Picture

ON: The Picture ADJ., Fine Picture and Position adjustments are made automatically.

Not available for digital ZOOM.

OFF: The Picture ADJ., Fine Picture and Position adjustments are made manually.

* If FINE PICTURE can't be adjusted, set Auto Picture to OFF and adjust manually.

■ Adjusting the position of the image

V-POSITION: Adjusts the vertical position of the image.

H-POSITION: Adjusts the horizontal position of the image.

V-HEIGHT: Adjusts the vertical size of the image. (Except for STADIUM mode)

H-WIDTH: Adjusts the horizontal size of the image. (Except for STADIUM mode)

FINE PICTURE*: Adjusts for flickering.

PICTURE ADJ.*: Adjusts for striped patterns on the image.

* The Picture ADJ. and Fine Picture features are available only when the “Auto Picture” is off.

* The AUTO PICTURE, FINE PICTURE and PICTURE ADJ. are available only for RGB signals. But, these features are not available for moving pictures on VIDEO, HD/DVD or RGB.

SET UP Settings Menu

Setting the language for the menus

The menu display can be set to one of eight languages.

Example: Setting the menu display to “DEUTSCH”

On “LANGUAGE” of “SET UP” menu, select “DEUTSCH”.

SET UP	
→LANGUAGE	: <DEUTSCH>
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ Language settings

ENGLISH	English	ITALIANO	Italian
DEUTSCH	German	SVENSKA	Swedish
FRANÇAIS	French	中文	Chinese
ESPAÑOL	Spanish	РУССКИЙ	Russian

Setting the BNC connectors

Select whether to set the input of the 5 BNC connectors to RGB and component or SCART1, 2.

Example: Set the BNC INPUT mode to “RGB”

On “BNC INPUT” of “SET UP” menu, select “RGB”.

SET UP	
LANGUAGE	: ENGLISH
→BNC INPUT	: <RGB>
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ BNC INPUT Settings

RGB: Use the 5BNC terminals for RGB input.

COMPONENT: Use the 3BNC terminals for component input.

SCART1: Use the 4BNC terminals for RGB with composite sync. See page E-7.

SCART2: Use the 3BNC terminals for RGB and the VIDEO1 terminal for composite sync. See page E-7.

Setting the RGB1 connector

Select one of the signals being transmitted to the RGB1 terminal.

Example: Set the D-SUB INPUT mode to “SCART3”

On “D-SUB INPUT” of “SET UP” menu, select “SCART3”.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
→D-SUB INPUT	: <SCART3>
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ D-SUB INPUT Settings

RGB: Use the D-SUB terminal for RGB input.

SCART3: Use the D-SUB terminal for RGB signal fed from SCART. See page E-7.

Setting high definition images to the suitable screen size

Use this procedure to set whether the number of vertical lines of the input high definition image is 1080I or 1035I or 540P.

Example: Setting the “HD SELECT” mode to “1035I”

On “HD SELECT” of “SET UP” menu, select “1035I”.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
→HD SELECT	: <1035I>
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ HD SELECT modes

These 3 modes are not displayed in correct image automatically.

1080I: Standard digital broadcasts

1035I: Japanese “High Vision” signal format

540P: Special Digital broadcasts (for example : DTC100)

Setting a computer image to the correct RGB select screen

With the computer image, select the RGB Select mode for a moving image such as (video) mode, wide mode or digital broadcast.

Example: Setting the “RGB SELECT” mode to “MOTION”

On “RGB SELECT” of “SET UP” menu, select “MOTION”.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
→RGB SELECT	: <MOTION>
DVI SET UP	: 1024×768
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀SEL	▶ADJ. [EXIT]RETURN

Information

■ RGB SELECT modes

One of these 7 modes must be selected in order to display the following signals correctly.

AUTO: Select the suitable mode for the specifications of input signals as listed in the table “Computer input signals supported by this system” on page E-2 of Model Information.

STILL: To display VESA standard signals. (Use this mode for a still image from a computer.)

MOTION: The video signal (from a scan converter)

will be converted to RGB signals to make the picture more easily viewable. (Use this mode for a motion image from a computer.)

WIDE1: When an 852 dot × 480 line signal with a horizontal frequency of 31.7kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE1.

WIDE2: When an 848 dot × 480 line signal with a horizontal frequency of 31.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE2.

WIDE3: When an 1920 dot × 1200 line signal with a horizontal frequency of 74.0 kHz is input, the image may be compressed horizontally. To prevent this, set RGB SELECT to WIDE3.

DTV: Set this mode when watching digital broadcasting (480P).

See page E-2 of Model Information for the details of the above settings.

Setting the signal and black level for DVI signal

Choose the signal for the DVI connector (PC or STB/DVD) and set the black level.

Example: Setting the “PLUG/PLBH±-mode to “STB/DVD”

On “SET UP” menu, select “DVI SET UP”, then press the MENU/ENTER button.

The “DVI SET UP” screen appears.

On “PLUG/PLAY” of “DVI SET UP” menu, select “STB/DVD”.



Information

■ PLUG/PLAY settings

PC: When connected to the PC signal.

BLACK LEVEL is set to “LOW” automatically.

STB/DVD: When connected to the SET TOP BOX, DVD etc.

BLACK LEVEL is set to “HIGH” automatically.

■ BLACK LEVEL settings

LOW: When connected to the PC signal.

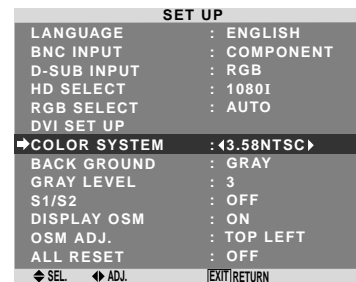
HIGH: When connected to the SET TOP BOX, DVD etc. Change “HIGH” into “LOW” if the black level appears gray.

Setting the video signal format

Use these operations to set the color systems of composite video signals or Y/C input signals.

Example: Setting the color system to “3.58 NTSC”

On “COLOR SYSTEM” of “SET UP” menu, select “3.58NTSC”.



Information

■ Video signal formats

Different countries use different formats for video signals. Set to the color system used in your current country.

AUTO: The color systems are automatically identified and the format is set accordingly.

PAL: This is the standard format used mainly in the United Kingdom and Germany.

SECAM: This is the standard format used mainly in France and Russia.

4.43 NTSC, PAL60: This format is used for videos in countries using PAL and SECAM video signals.

3.58 NTSC: This is the standard format used mainly in the United States and Japan.

PAL-M: This is the standard format used mainly in Brazil.

PAL-N: This is the standard format used mainly in Argentina.

Setting the background color when no signal is being input

The color displayed on the background when there is no signal can be set to gray.

Example: Setting “BACK GROUND” to “BLACK”

On “BACK GROUND” of “SET UP” menu, select “BLACK”.



Information

■ BACK GROUND Settings

BLACK: Sets the background color to black.

GRAY: Sets the background color to gray.

Setting this makes it easier to see that there is no signal.

Setting the gray level for the sides of the screen

Use this procedure to set the gray level for the parts on the screen on which nothing is displayed when the screen is set to the 4:3 size.

Example: Setting "GRAY LEVEL" to "5"

On "GRAY LEVEL" of "SET UP" menu, select "5".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 5
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀ SEL. ▶ ADJ. [EXIT] RETURN	

Information

■ GRAY LEVEL settings

This adjusts the brightness of the black (the gray level) for the sides of the screen.

The standard is 0 (black). The level can be adjusted from 0 to 15. The factory setting is 3 (dark gray).

Setting the screen size for S1/S2 video input

If the S-video signal contains screen size information, the image will be automatically adjusted to fit the screen when this S1/S2 is set to AUTO.

This feature is available only when an S-video signal is input via the VIDEO3 terminal.

Example: Setting "S1/S2" to "AUTO"

On "S1/S2" of "SET UP" menu, select "AUTO".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: AUTO
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀ SEL. ▶ ADJ. [EXIT] RETURN	

Information

■ S1/S2 settings

AUTO: Adjusts the screen size automatically according to the S1/S2 video signal.

OFF: Turns the S1/S2 function off.

Turning on/off the menu display

When this is set to OFF, the menu will not displayed even if you press the MENU/ENTER button.

Example: Turning the DISPLAY OSM off

On "DISPLAY OSM" of "SET UP" menu, select "OFF".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: OFF
OSM ADJ.	: TOP LEFT
ALL RESET	: OFF
◀ SEL. ▶ ADJ. [EXIT] RETURN	

Information

■ DISPLAY OSM settings

ON: The on-screen menu appears.

OFF: The on-screen menu does not appear.

If you press the DISPLAY button on the remote control for more than 3 seconds the main menu will appear and can be set (although it is not ON).

Setting the position of the menu

Adjusts the position of the menu when it appears on the screen.

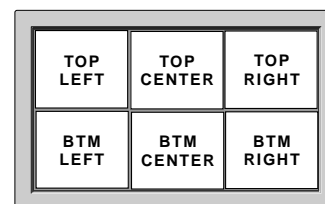
Example: Set the position to "TOP CEN"

On "OSM ADJ." of "SET UP" menu, select "TOP CEN".

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP CENTER
ALL RESET	: OFF
◀ SEL. ▶ ADJ. [EXIT] RETURN	

Information

■ OSM ADJUST settings



Resetting to the default values

Use these operations to restore all the settings (PICTURE, AUDIO, IMAGE ADJUST, SET UP, etc) to the factory default values.

Refer to page E-15 for items to be reset.

On "ALL RESET" of "SET UP" menu, select "ON", then press the MENU/ENTER button.

SET UP	
LANGUAGE	: ENGLISH
BNC INPUT	: COMPONENT
D-SUB INPUT	: RGB
HD SELECT	: 1080I
RGB SELECT	: AUTO
DVI SET UP	
COLOR SYSTEM	: AUTO
BACK GROUND	: GRAY
GRAY LEVEL	: 3
S1/S2	: OFF
DISPLAY OSM	: ON
OSM ADJ.	: TOP LEFT
ALL RESET	: ON
◀ SEL. ▶ ADJ. [EXIT] RETURN	



When the "SETTING NOW" screen disappears, then all the settings are restored to the default values.

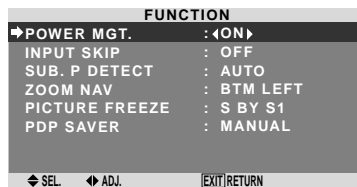
Function Settings Menu

Setting the power management for computer images

This energy-saving (power management) function automatically reduces the monitor's power consumption if no operation is performed for a certain amount of time.

Example: Turning the power management function on

On "POWER MGT." of "FUNCTION" menu, select "ON".



Information

■ Power management function

- * The power management function automatically reduces the monitor's power consumption if the computer's keyboard or mouse is not operated for a certain amount of time. This function can be used when using the monitor with a computer.
- * If the computer's power is not turned on or if the computer and selector tuner are not properly connected, the system is set to the off state.
- * For instructions on using the computer's power management function, refer to the computer's operating instructions.

■ Power management settings

ON: In this mode the power management function is turned on.

OFF: In this mode the power management function is turned off.

■ Power management function and POWER/STANDBY indicator

The POWER/STANDBY indicator indicates the status of the power management function. See below for indicator status and description.

POWER/STANDBY indicator

Power management mode	POWER/STANDBY indicator	Power management operating status	Description	Turning the picture back on
On	Green	Not activated.	Horizontal and vertical synchronizing signals are present from the computer.	Picture already on.
Off	Red	Activated.	Horizontal and/or vertical synchronizing signals are not sent from the computer.	Operate the keyboard or mouse. The picture reappears.

Setting the Input Skip

When this is ON, signals which are not present will be skipped over and only pictures whose signals are being transmitted will be displayed.

This setting is valid only for the INPUT SELECT button on the unit.

Example: Set to "ON"

On "INPUT SKIP" of "FUNCTION" menu, select "ON".



Information

■ INPUT SKIP settings

OFF: Regardless of the presence of the signal, scan and display all signals.

ON: If no input signal is present, skip that signal.

* "SETTING NOW" will appear during the input search.

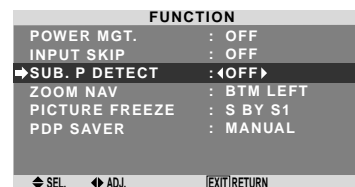
Erasing the sub screen image when there is no input signal

This function automatically erases the black frame of the sub screen when there is no sub screen input signal.

This feature is available only when the picture-in-picture mode is selected.

Example: Set to "OFF"

On "SUB. P DETECT" of "FUNCTION" menu, select "OFF".



Information

■ SUB. P DETECT Function

- * The sub screen disappears when the input signal is lost.
- * Loss of the input signal means a condition in which the video signal and the sync signal are not present.
- * Under conditions in which the sub screen has disappeared, the ZOOM NAV and PICTURE FREEZE functions will not work. The WIDE button will not function either.

■ SUB. P DETECT settings

AUTO: The black frame disappears 3 seconds after the input signal is lost.

OFF: Turns off the SUB. P DETECT function.

Displaying the entire image during DIGITAL ZOOM operations

Use this function to display the entire image within the sub screen together with an enlarged image on the main screen.

Example: Setting "ZOOM NAV" to "S BY S"

On "ZOOM NAV" of "FUNCTION" menu, select "S BY S".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
→ ZOOM NAV	: ◀ S BY S ▶
PICTURE FREEZE	: S BY S1
PDP SAVER	: MANUAL

◀ SEL ▶ ADJ. [EXIT] RETURN

Information

■ ZOOM NAV Function

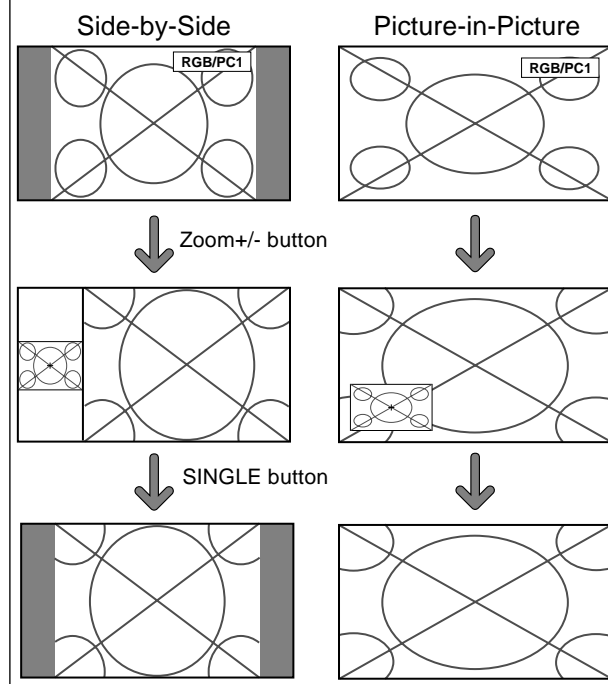
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during multi screen mode.
- * This feature does not function while PICTURE FREEZE is operating.
- * Providing a 2-screen display will cancel this function.

■ ZOOM NAV settings

OFF: Will not show the entire image on the sub screen.

S BY S: Will show the entire image on the sub screen of side-by-side mode.

BTM LEFT~TOP LEFT: Will show the entire image on the sub screen of picture-in-picture mode.



Displaying still images in the sub screen

This feature enables display in the sub screen of still images captured by pressing the ACTIVE SELECT button.

Example: Setting "PICTURE FREEZE" to "BTM LEFT"

On "PICTURE FREEZE" of "FUNCTION" menu, select "BTM LEFT".

FUNCTION	
POWER MGT.	: OFF
INPUT SKIP	: OFF
SUB. P DETECT	: AUTO
ZOOM NAV	: BTM LEFT
→ PICTURE FREEZE	: ◀ BTM LEFT ▶
PDP SAVER	: MANUAL

◀ SEL ▶ ADJ. [EXIT] RETURN

Information

■ PICTURE FREEZE Function

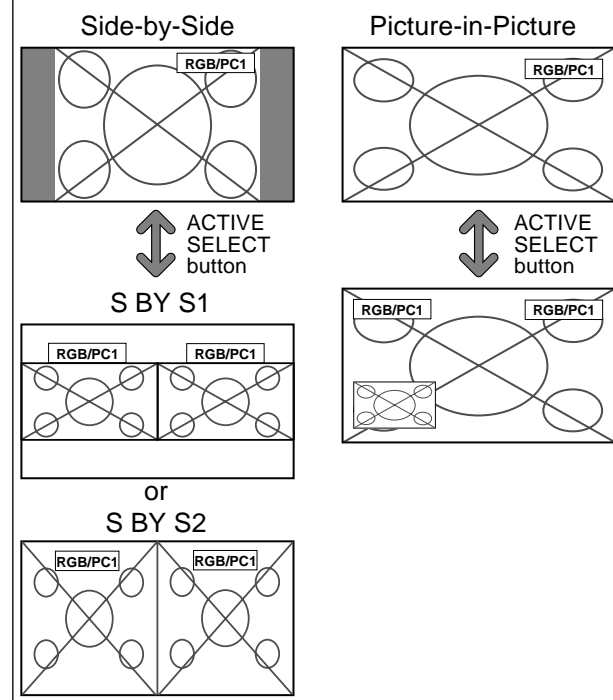
- * This feature is available only for RGB1 or RGB2 input signals.
- * This feature does not function during multi screen mode.
- * Digital zoom is not available while this function is operating.
- * A further press of the ACTIVE SELECT button while this function is operating will cancel this function.
- * Providing a 2-screen display will cancel this function.

■ PICTURE FREEZE settings

OFF: Will not show the still image.

S BY S1, 2: The still images captured by pressing the ACTIVE SELECT button will be shown on the sub screen of side-by-side mode.

BTM LEFT~TOP LEFT: The still images captured by pressing the ACTIVE SELECT button will be shown on the sub screen of picture-in-picture mode.



Reducing burn-in of the screen

The brightness of the screen, the position of the picture, positive/negative mode and screen wiper are adjusted to reduce burn-in of the screen.

On "PDP SAVER" of "FUNCTION" menu, select "MANUAL", then press the MENU/ENTER button.

The "PDP SAVER" screen appears.

PDP SAVER	
▶PEAK BRIGHT	: ◀100%▶
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ When set to AUTO

Set automatically, as described below.

PEAK BRIGHT: 100%

ORBITER: OFF

INVERSE/WHITE: OFF

SCREEN WIPER: OFF

SOFT FOCUS: OFF

OSM ORBITER: ON

OSM CONTRAST: LOW

PEAK BRIGHT

Use this to activate the brightness limiter.

Example: Setting "PEAK BRIGHT" to "75%"

On "PEAK BRIGHT" of "PDP SAVER" menu, select "75%".

PDP SAVER	
▶PEAK BRIGHT	: ◀75%▶
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ PEAK BRIGHT settings

100%: The brightness of the screen is adjusted automatically to suit the picture quality.

75%, 50%, 25%: Sets maximum brightness.

The brightness level decreases in the order of 75%, 50%, 25%. 25% provides minimum brightness.

* These values are approximate.

ORBITER

Use this to set the picture shift.

Example: Setting "ORBITER" to "AUTO1"

On "ORBITER" of "PDP SAVER" menu, select "AUTO1".

PDP SAVER	
PEAK BRIGHT	: 100%
▶ORBITER	: ◀AUTO1▶
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ ORBITER settings

OFF: Orbiter mode does not function.

This is the default setting when RGB is input.

AUTO1: The picture moves around the screen intermittently, making the picture smaller. This is the default setting when a Video or a DVD/HD/DTV signal is input. Set to "OFF" when these signals are not used.

AUTO2: The picture moves around the screen intermittently, making the picture bigger.

* When a Video or a DVD/HD/DTV signal is input, the AUTO1 and 2 functions will affect only the moving picture and will not make the screen smaller or bigger.

INVERSE/WHITE

Use this to set the inverse mode or to display a white screen.

Example: Setting "INVERSE/WHITE" to "WHITE"

On "INVERSE/WHITE" of "PDP SAVER" menu, select "WHITE".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
▶INVERSE/WHITE	: ◀WHITE▶
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ INVERSE/WHITE Settings

OFF: Inverse/white mode does not function.

INVERSE: The picture is displayed alternately between positive image and negative image.

WHITE: The entire screen turns white.

SCREEN WIPER

When this is set to ON, a white vertical bar moves repeatedly from the left and of the screen to the right end at a constant speed.

Example: Setting "SCREEN WIPER" to "ON"

On "SCREEN WIPER" of "PDP SAVER" menu, select "ON".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
▶SCREEN WIPER	: ◀ON▶
SOFT FOCUS	: OFF
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ SCREEN WIPER

ON: The white vertical bar appears.

OFF: Screen wiper mode does not function.

SOFT FOCUS

Reduces edges and softens the image.

Example: Setting "SOFT FOCUS" to "LEVEL2"

On "SOFT FOCUS" of "PDP SAVER" menu, select "LEVEL2".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
➔SOFT FOCUS	: ◀LEVEL2▶
OSM ORBITER	: ON
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ SOFT FOCUS settings

OFF: Turns the SOFT FOCUS function off.

LEVEL1, 2, 3, 4: Activates the SOFT FOCUS setting.

The higher numbers create a softer image.

"SHARPNESS" can not be adjusted on the "PICTURE" menu.

OSM ORBITER

Use this to set OSM menu shift.

Example: Setting "OSM ORBITER" to "OFF"

On "OSM ORBITER" of "PDP SAVER" menu, select "OFF".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
➔OSM ORBITER	: ◀OFF▶
OSM CONTRAST	: LOW
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ OSM ORBITER settings

ON: The position of the menu will be shifted by eight dots each time OSM is displayed.

OFF: OSM will be displayed at the same position.

OSM CONTRAST

Use this to reduce the brightness of OSM menu.

Example: Setting "OSM CONTRAST" to "NORMAL"

On "OSM CONTRAST" of "PDP SAVER" menu, select "NORMAL".

PDP SAVER	
PEAK BRIGHT	: 100%
ORBITER	: OFF
INVERSE/WHITE	: OFF
SCREEN WIPER	: OFF
SOFT FOCUS	: OFF
OSM ORBITER	: ON
➔OSM CONTRAST	: ◀NORMAL▶
◀SEL. ▶ADJ.	[EXIT]RETURN

Information

■ OSM CONTRAST settings

NORMAL: OSM brightness is set to normal.

LOW: OSM brightness is set to lower.

Signal Information Menu

Checking the frequencies, polarities of input signals, and resolution

Use this function to check the frequencies and polarities of the signals currently being input from a computer, etc.

On "MAIN MENU", select "SIGNAL INFO.", then press the MENU/ENTER button.

The "SIGNAL INFORMATION" is displayed.

SIGNAL INFORMATION	
H. FREQUENCY	: 48.4KHz
V. FREQUENCY	: 60.0Hz
H. POLARITY	: NEGATIVE
V. POLARITY	: NEGATIVE
MEMORY	: 24
RESOLUTION	: 1024 × 768
◀SEL. ▶ADJ.	[EXIT]RETURN

PC: MEMORY will be displayed.

Others: MODE will be displayed.

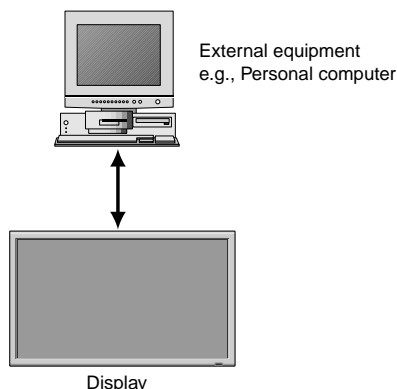
External Control Pin Assignments

Application

These specifications cover the communications control of the plasma monitor by external equipment.

Connections

Connections are made as described below.

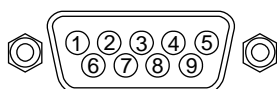


Connector on the plasma monitor side: EXTERNAL CONTROL connector.

Use a crossed (reverse) cable.

Type of connector: D-Sub 9-pin male

Pin No.	Pin Name	Pin No.	Pin Name
1	No Connection	6	DSR (DCE side ready)
2	RXD (Receive data)	7	RTS (Ready to send)
3	TXD (Transmit data)	8	CTS (Clear to send)
4	DTR (DTE side ready)	9	No connection
5	GND		



Communication Parameters

- | | |
|--------------------------|--------------|
| (1) Communication system | Asynchronous |
| (2) Interface | RS-232C |
| (3) Baud rate | 9600 bps |
| (4) Data length | 8 bits |
| (5) Parity | Odd |
| (6) Stop bit | 1 bit |
| (7) Communication code | Hex |

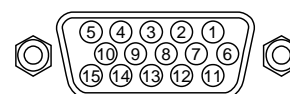
External Control Codes (Reference)

FUNCTION		CODE DATA							
Power ON		9FH	80H	60H	4EH	00H	CDH		
OFF		9FH	80H	60H	4FH	00H	CEH		
Input Switch	Video1 (BNC)	DFH	80H	60H	47H	01H	01H	08H	
	Video2 (RCA)	DFH	80H	60H	47H	01H	02H	09H	
	Video3 (S-Video)	DFH	80H	60H	47H	01H	03H	0AH	
	DVD1/HD1 (RCA)	DFH	80H	60H	47H	01H	05H	0CH	
	DVD2/HD2 (BNC)	DFH	80H	60H	47H	01H	06H	0DH	
	DVD3/HD3 (DVI)	DFH	80H	60H	47H	01H	0EH	15H	
	RGB1 (mini D-Sub 15-Pin)	DFH	80H	60H	47H	01H	07H	0EH	
	RGB2 (5BNC)	DFH	80H	60H	47H	01H	08H	0FH	
Audio Mute	ON	9FH	80H	60H	3EH	00H	BDH		
	OFF	9FH	80H	60H	3FH	00H	BEH		
Picture Mode	NORMAL	DFH	80H	60H	0AH	01H	01H	CBH	
	THEAT. 1	DFH	80H	60H	0AH	01H	02H	CCH	
	THEAT. 2	DFH	80H	60H	0AH	01H	03H	CDH	
	DEFAULT BRIGHT	DFH	80H	60H	0AH	01H	04H	CEH	
Screen Mode	STADIUM	DFH	80H	60H	51H	01H	02H	13H	
	ZOOM	DFH	80H	60H	51H	01H	03H	14H	
	NORMAL	DFH	80H	60H	51H	01H	04H	15H	
	ANAMORPHIC	DFH	80H	60H	51H	01H	05H	16H	
	14 : 9	DFH	80H	60H	51H	01H	09H	1AH	
	2.35 : 1	DFH	80H	60H	51H	01H	0AH	1BH	
Auto Picture	ON	DFH	80H	60H	7FH	03H	03H	09H	00H 4DH
	OFF	DFH	80H	60H	7FH	03H	03H	09H	01H 4EH
Cinema Mode	ON	DFH	80H	60H	C1H	01H	01H	82H	
	OFF	DFH	80H	60H	C1H	01H	02H	83H	

Note: Contact your local dealer for a full list of the External Control Codes if needed.

mini D-Sub 15-pin connector (Analog)

RGB 1



Pin No.	Signal (Analog)
1	Red
2	Green or sync-on-green
3	Blue
4	No connection
5	Ground
6	Red ground
7	Green ground
8	Blue ground
9	No connection
10	Sync signal ground
11	No connection
12	Bi-directional DATA (SDA)
13	Horizontal sync or Composite sync
14	Vertical sync
15	Data clock

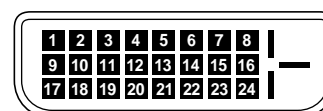
DVI-D 24-pin connector (Digital)

The unit is equipped with a type of connector commonly used for digital.

(This cannot be used for an analog input.)

(TMDS can be used for one link only.)

RGB 3



Pin No.	Signal (Digital)
1	T.M.D.S Data 2 -
2	T.M.D.S Data 2 +
3	T.M.D.S Data 2 Shield
4	No connection
5	No connection
6	DDC Clock
7	DDC Data
8	No connection
9	T.M.D.S Data 1 -
10	T.M.D.S Data 1 +
11	T.M.D.S Data 1 Shield
12	No connection
13	No connection
14	+5V Power
15	Ground
16	Hot Plug Detect
17	T.M.D.S Data 0 -
18	T.M.D.S Data 0 +
19	T.M.D.S Data 0 Shield
20	No connection
21	No connection
22	T.M.D.S Clock Shield
23	T.M.D.S Clock +
24	T.M.D.S Clock -

Troubleshooting

If the picture quality is poor or there is some other problem, check the adjustments, operations, etc., before requesting service.

Symptom	Checks	Remedy
Mechanical sound is heard.	• Maybe the sound from the cooling fans used to prevent over heating.	
The unit emits a crackling sound.	• Are the image and sound normal?	• If there are no abnormalities in the image and sound, the noise is caused by the cabinet reacting to changes in temperature. This will not affect performance.
Picture is disturbed. Sound is noisy. Remote control operates erroneously.	• Is a connected component set directly in front or at the side of the display?	• Leave some space between the display and the connected components.
The remote control does not work.	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
Monitor's power does not turn on when the remote control's power button is pressed.	• Is the monitor's power cord plugged into a power outlet?	• Plug the monitor's power cord into a power outlet.
	• Are all the monitor's indicators off?	• Press the power button on the monitor to turn on the power.
	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
Monitor does not operate when the remote control's buttons are pressed.	• Is the remote control pointed at the monitor, or is there an obstacle between the remote control and the monitor?	• Point the remote control at the monitor's remote control sensor when pressing buttons, or remove the obstacle.
	• Is direct sunlight or strong artificial light shining on the monitor's remote control sensor?	• Eliminate the light by closing curtains, pointing the light in a different direction, etc.
	• Are the remote control's batteries worn out?	• Replace both batteries with new ones.
No sound or picture is produced.	• Is the monitor's power cord plugged into a power outlet?	• Plug the monitor's power cord into a power outlet.
Picture appears but no sound is produced.	• Is the volume set at the minimum?	• Increase the volume.
	• Is the mute mode set?	• Press the remote control's MUTE button.
	• Are the speakers properly connected?	• Connect the speakers properly.
	• Is AUDIO INPUT set correctly?	• Set AUDIO INPUT on the AUDIO menu correctly.
Poor picture with VIDEO signal input.	• Improper control setting. Local interference. Cable interconnections. Input impedance is not correct level.	• Adjust picture control as needed. Try another location for the monitor. Be sure all connections are secure.
Poor picture with RGB signal input.	• Improper control setting. Incorrect 15 PIN connector pin connections.	• Adjust picture controls as needed. Check pin assignments and connections.
Tint is poor or colors are weak.	• Are the tint and colors properly adjusted?	• Adjust the tint and color (under PICTURE).
Nothing appears on screen.	• Is the computer's power turned on?	• Turn on the computer's power.
	• Is a source connected?	• Connect source to the monitor.
	• Is the power management function in the standby or off mode?	• Operate the computer (move the mouse, etc.).
Part of picture is cut off or picture is not centered.	• Is the position adjustment appropriate?	• Adjust the IMAGE ADJUST properly.
Image is too large or too small.	• Is the screen size adjustment appropriate?	• Press the WIDE button on the remote control and adjust properly.
Picture is unstable.	• Is the computer's resolution setting appropriate?	• Set to the proper resolution.
POWER/STANDBY indicator is lighted in red.	• Horizontal and / or vertical sync signal is not present when the Intelligent Power Manager control is on.	• Check the input signal.
POWER/STANDBY indicator is blinking in red.	• The temperature inside the main unit has become too high and has activated the protector.	• Promptly switch off the power of the main unit and wait until the internal temperature drops. See*1.
POWER/STANDBY indicator is blinking in green and red, or green.	_____	• Promptly switch off the power of the main unit. See *2.

***1 Overheat protector**

If the monitor becomes too hot, the overheat protector will be activated and the monitor will be turned off. If this happens, turn off the power to the monitor and unplug the power cord. If the room where the monitor is installed is particularly hot, move the monitor to a cooler location and wait for the monitor to cool for 60 minutes. If the problem persists, contact your dealer.

***2 In the following case, power off the monitor immediately and contact your dealer or authorized Service Center.**

The monitor turns off 5 seconds after powering on and then the POWER/STANDBY indicator blinks. It indicates that the power supply circuit, plasma display panel, temperature sensor, or one or more fans have been damaged.

TROUBLESHOOTING

- **Problems in the power supply, such as “Failure in Power ON” or “LED flashing or lighting (alarm display)”**
 - 1. Go to Power failure (P5-2).
- **Problems in the images, such as “No pictures available”**
 - 2. Go to Image errors (P5-8).
- **No video loop-out signal is generated.**
 - The MAIN PWB is faulty.
- **“Remote control not effective”**
 - 3. Go to Audio errors (P5-16).
- **“Remote control not effective”**
 - 4. Go to Remote control not effective (P5-17).
- **The closed caption is displayed incorrectly. (PX-*****A only)**
 - 5. Go to "The closed caption (CC) is displayed incorrectly." (P.5-19).

1. Power failure

(1) The power supply is not turned on.

Move the main power setting for OFF→ ON.

Is the POWER/STANDBY lamp lit?

YES

(2) Blinking in green (Alarm of temperature sensor error or fan error) Go to (P5-3)

(3) Blinking in red after repeating reciprocal flash in red and green (POWER ON↔OFF) 3times (Alarm of temperature error) Go to (P5-5).

(4) Reciprocal flashing in red and green (Alarm of panel error) Go to (P5-6).

(5) Lighting in green, and then in red (Alarm of power line error) Go to (P5-7).

Is a 5Vdc output available in the state that the LD connector is disconnected and the main power is turned ON?

YES

The LD connector or the LED PWB is fault.

NO

Is a 5Vdc output available in the state that the RS connector is disconnected and the main power is turned ON?

YES

The RS connector or the 232C PWB is fault.

NO

The PW connector, PWR PWB or the MAIN PWB is fault.

(Caution) If any abnormality is sensed in such a manner that the LED flashes or lights, all the power lines other than those of 7Vdc (M+7V) and 5Vdc (M+5V) are automatically turned off in about 10 seconds. When checking the power lines other than those of M+7V and M+5V, a circuit tester or the like should have been connected in advance.

Is the AC power output available at the AC connector (power cord)?

NO

The power cord is defective.

YES

Is a 6.8Vdc output available at Pin ① of the PM connector?

NO

Is a 6.8Vdc output available in the state that the LD connector is disconnected and the main power is turned ON?

YES

The LD connector or the LED PWB is fault.

NO

Is a 6.8Vdc output available in the state that the PW connector is disconnected and the main power is turned ON?

YES

The PW connector or the PWR PWB is fault.

NO

Is a 6.8Vdc output available at Pin ① of the PW connector?

NO

The PW connector or the PWR PWB is fault.

YES

Is a 6.8Vdc output available at Pin ⑥ of the PM connector?

NO

The PM connector or the MAIN PWB is fault.

YES

Is a 4.9Vdc output available at Pin ③ of the PM connector?

NO

Is a 5Vdc output available at Pin ④ of the PW connector?

NO

The MAIN PWB is fault.

YES

NO

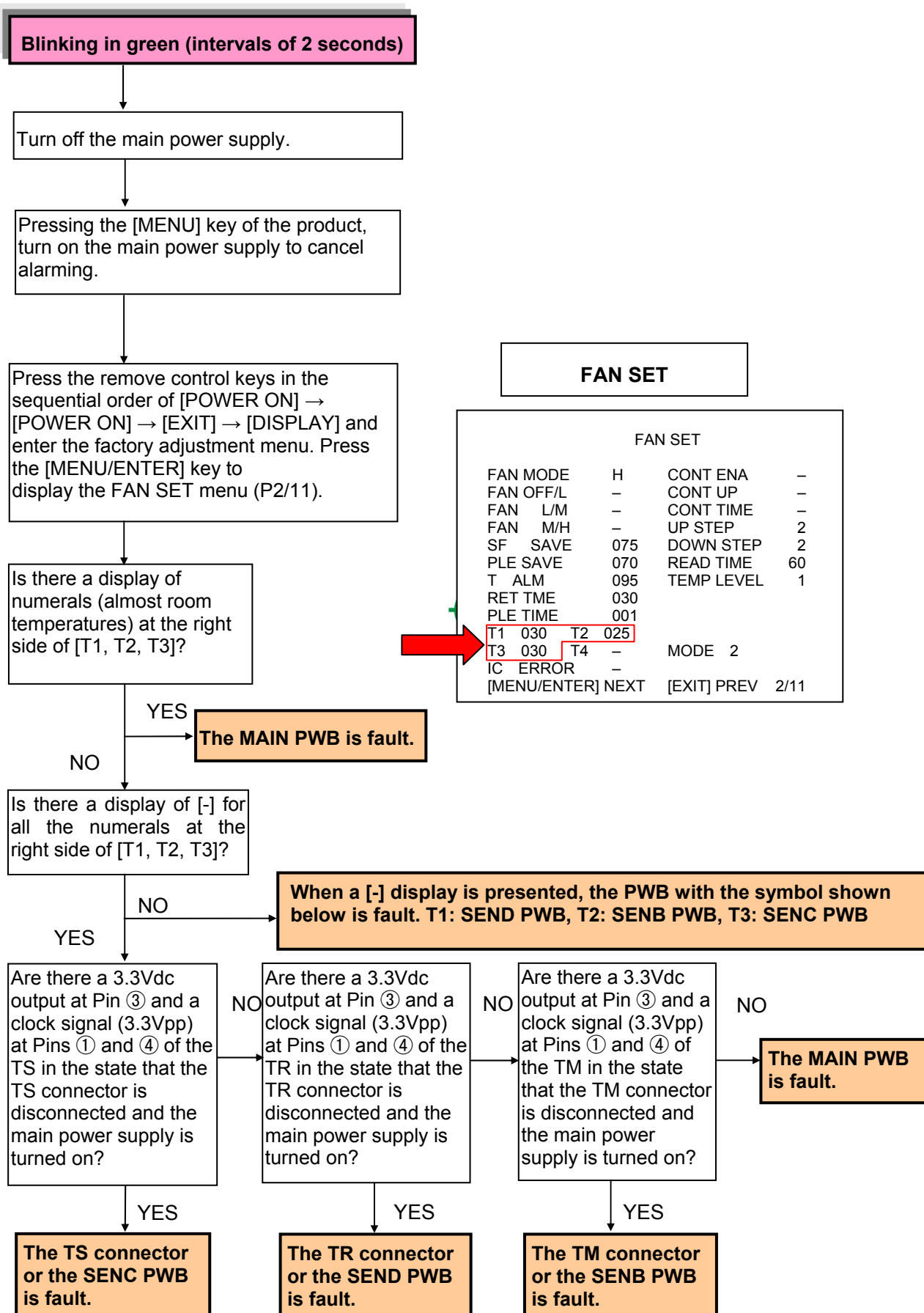
The power unit is fault.

YES

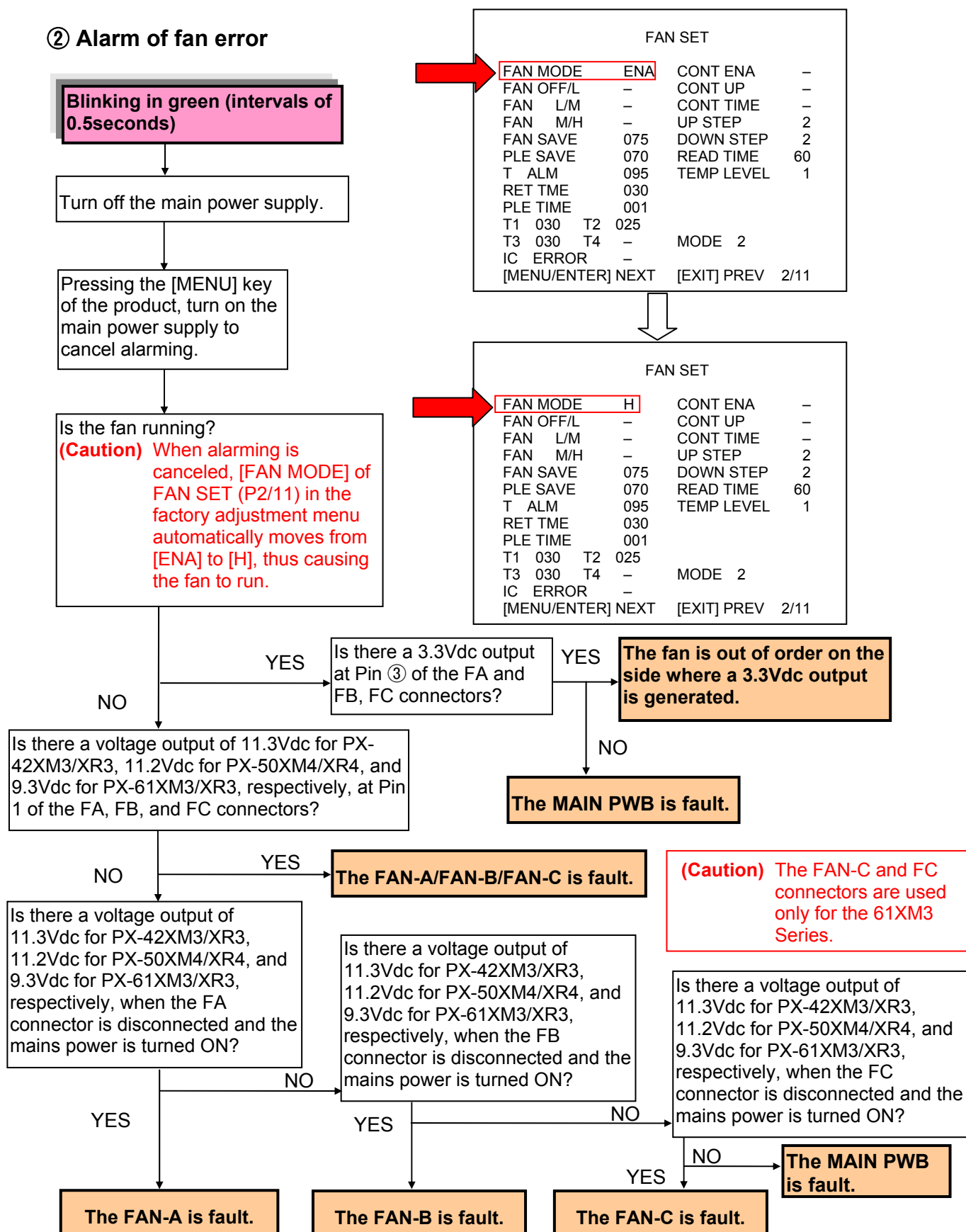
The PM connector or the MAIN PWB is fault.

(2) Blinking in green

① Alarm of temperature sensor error



② Alarm of fan error



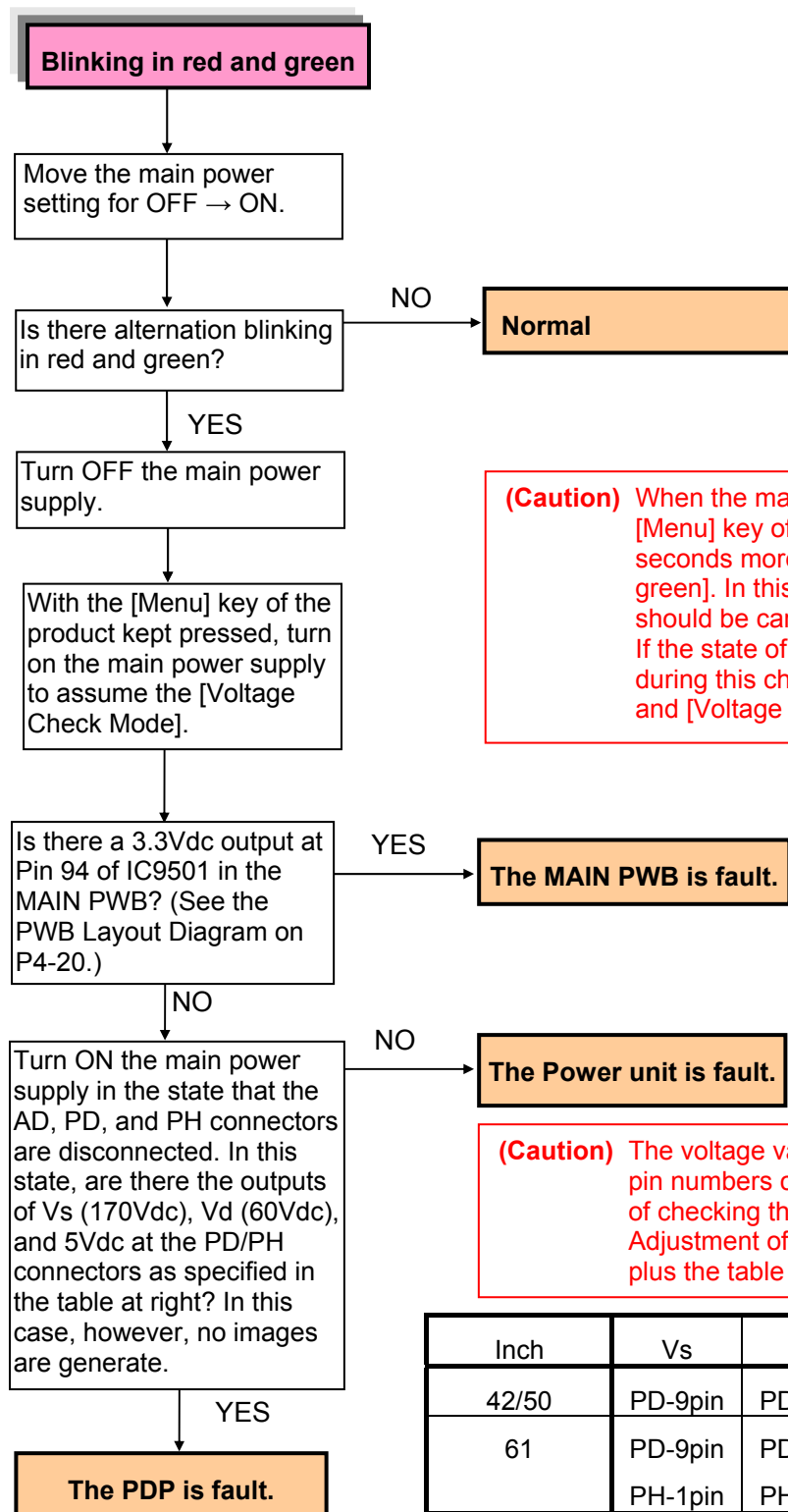
(3) Blinking in red (Alarm of temperature error)

Since the internal temperature is too high in the product, the temperature protector has been actuated. In such a case, the following actions should be taken immediately:

1. Turn off the main power supply and pull out the power cord from the wall outlet.
2. Wait for about 60 minutes until the temperature in the main unit lowers.
3. Check whether the heat discharge port is covered with dust or the like. If yes, remove the clogging substance.
4. If the unit is used where the ambient temperature is high, it should be moved to an adequate place (air temperature ranging from 5°C to 35°C).

(4) Alternation blinking in red and green (Alarm of PDP error)

(Caution) How to reset the alarming condition
Pressing the [Input Select] key of the product, turn on the main power supply of the main unit. In this state, keep pressing the [Input Select] key for more than 2 seconds until alarming is canceled. Make confirmation by the method specified below.



(Caution) When the main power supply is turned on with the [Menu] key of the product kept pressed, it takes 30 seconds more to assume the state of [blinking in red and green]. In this time period, the following voltage checks should be carried out.
If the state of [blinking in red and green] is assumed during this checking, take actions of [Alarm Canceling] and [Voltage Check Mode Setup] again.

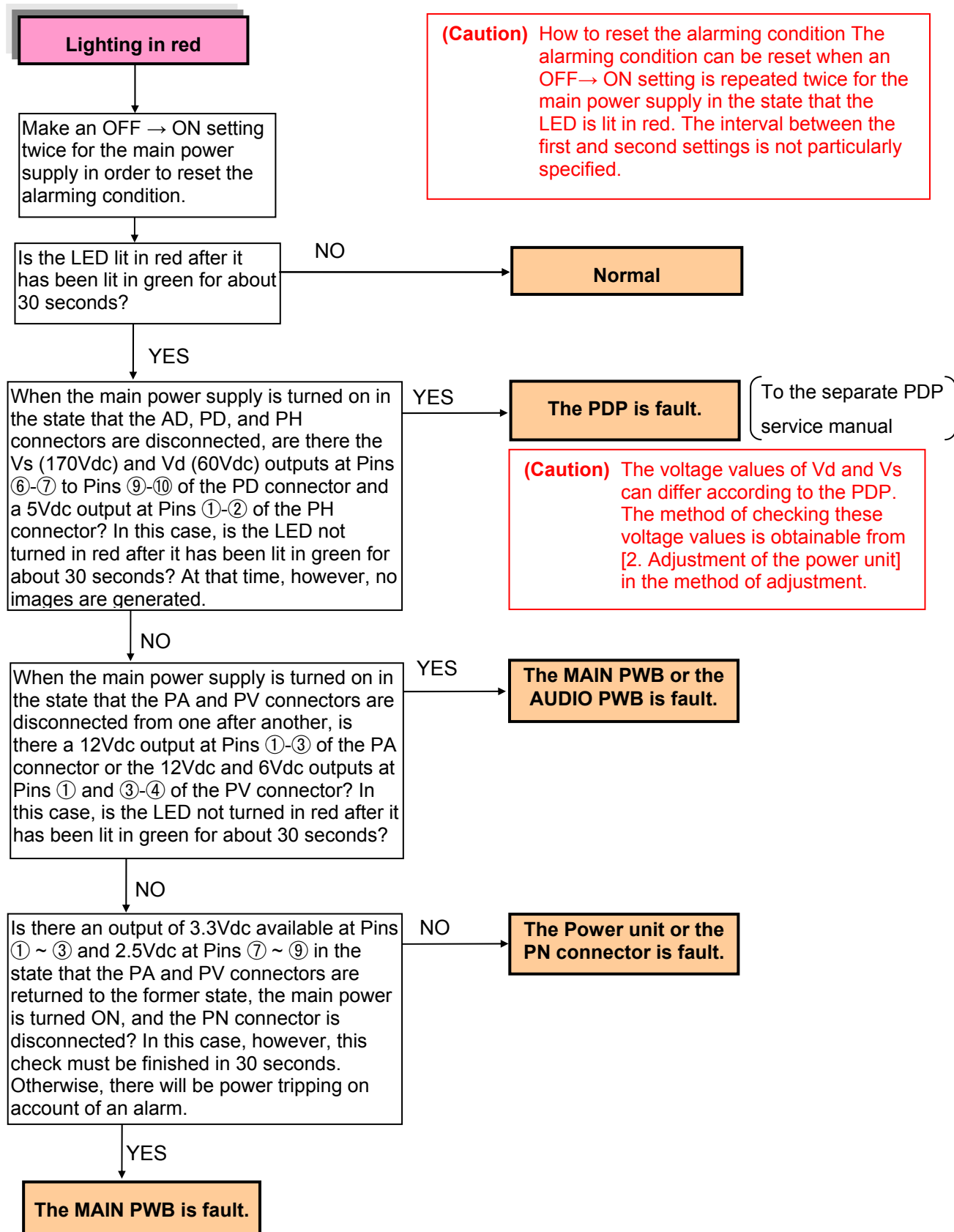
(Caution) The voltage values of Vd and Vs and also the connector pin numbers can differ according to the PDP. The method of checking these voltage values is obtainable from [2. Adjustment of the power unit] in the method of adjustment plus the table specified below.

Inch	Vs	Vd	GND	5Vdc	GND
42/50	PD-9pin	PD-7pin	PD-5pin	PH-1pin	PH-3pin
61	PD-9pin	PD-7pin	PD-5pin	PD-4pin	PD-5pin
	PH-1pin	PH-4pin	PH-5pin	PH-7pin	PH-5pin

(To the separate PDP service manual)

(5) Lighting in green, and then in red (Alarm of power voltage error)

Unlike [lighting in red] in the STANDBY mode, [lighting in green] continues for about 30 seconds without any output of images and audio signals. Since then, the mode turns into [lighting in red].



2. Image errors

(Caution) Typical abnormal images are shown below. All errors do not always fall on these error samples.

(1) Image burn and deterioration in brightness

Residual images are seen without signal entry.

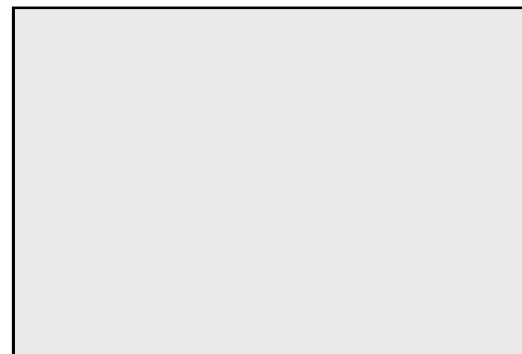
This is not a fault.



No signal

Deterioration in brightness

This is not a fault.



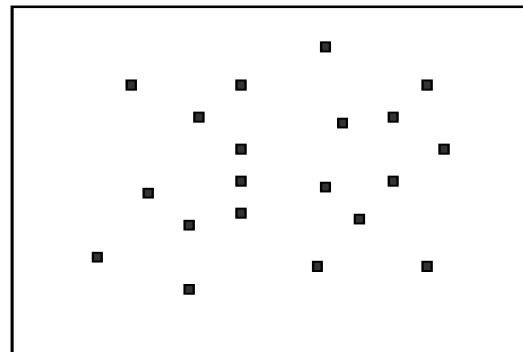
All-whitesignal

(2) Failure in writing

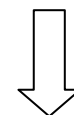
Failure in writing

The PDP is fault.

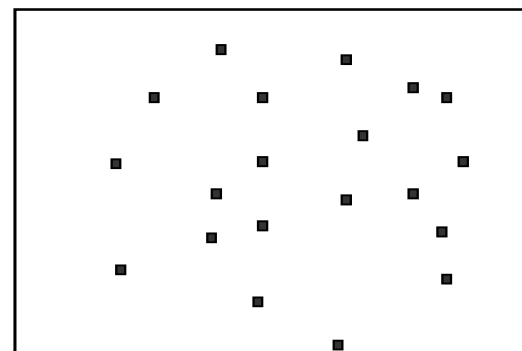
(To the separate PDP service manual)



All-whitesignal

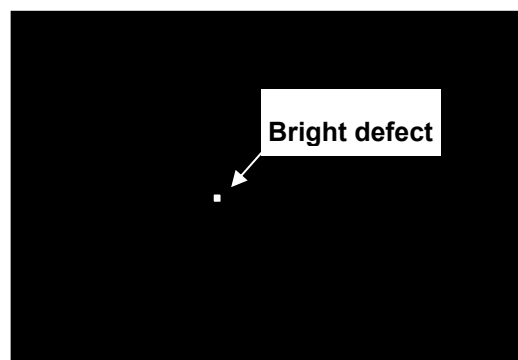
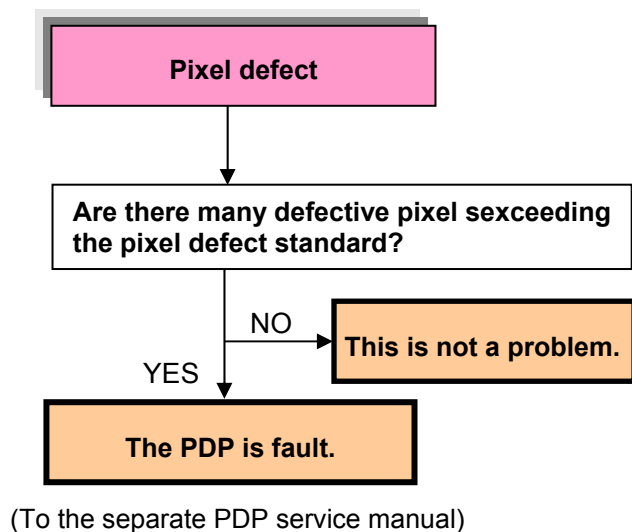


Dot errors change with no continuity.

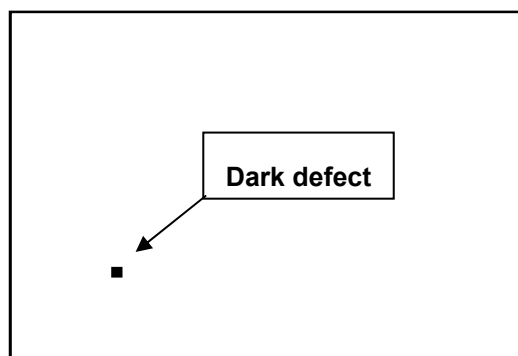


All-whitesignal

(3) Pixel defect



(Fig. 1) All-Black Signal



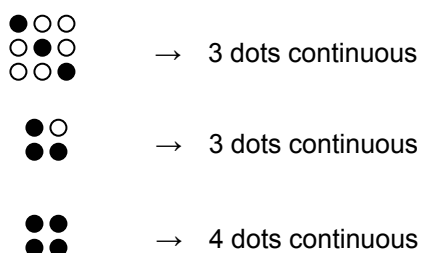
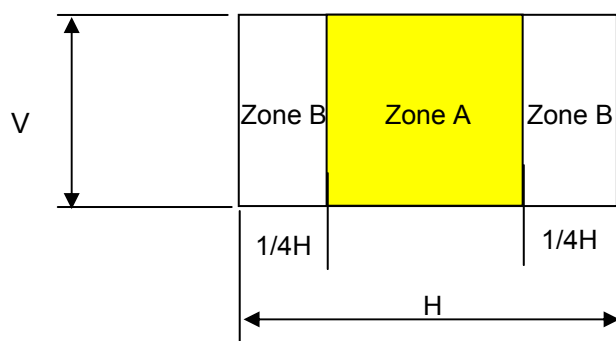
(Fig. 2) All-White Signal

[Pixel defect standard for reference]

	Displayed image	Pixel defect standard	
		Non-continuous	Continuous
Bright defect	Black all over the screen (Fig. 1)	Zone A: □ dots or less in all for each color Zone B: □ dots or less in all for each color	Continuous □ dots or less
	Red level 100% over the screen	Zone A: □ dots or less in all for each color	Defective when □ dots or less are continuously horizontal and seen white.
	Green level 100% over the screen	Zone B: □ dots or less in all for each color	
	Blue level 100% over the screen	Each zone: □ dots or less for each uni-color	
Dark defect	Red level 100% over the screen	Zone A: □ dots or less in all for each color Zone B: □ dots or less in all for each color	Zone A: □ dots or less vertically continuous
	Green level 100% over the screen		Zone B: □ dots or less continuous
	Blue level 100% over the screen		Except for the continuous portions, however, the distance between dark dots shall be □ cm or more.
	White all over the screen (Fig. 2)	—	Zone A: □ dots continuous in one portion or less (□ dots for vertical continuity) Zone B: □ dots or less continuous Except for the continuous portions, however, the distance between dark dots shall be □ cm or more.

(Caution) In regard to the full information, refer to the PDP quality updating report (Japan) or the PDP quality report (other than Japan).

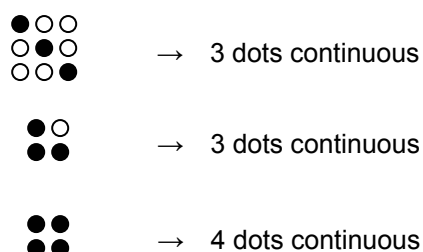
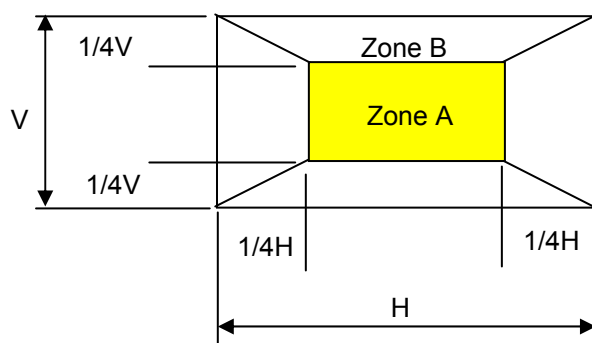
<For the 42XM3/XR3, 50XM4/XR4, and 61XM3/XR3>



(Caution1) Zone A: Central part (the area surrounded by the right and left sides by $1/4H$) with the area that is $1/2$ of the whole
Zone B: Area other than A above

(Caution2) The continuous dots appearing in the slantwise direction or in a cluster state shall be defined as follows:

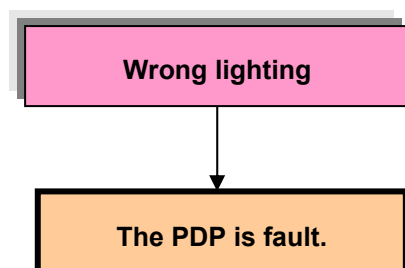
<For the 42VM5/VP5>



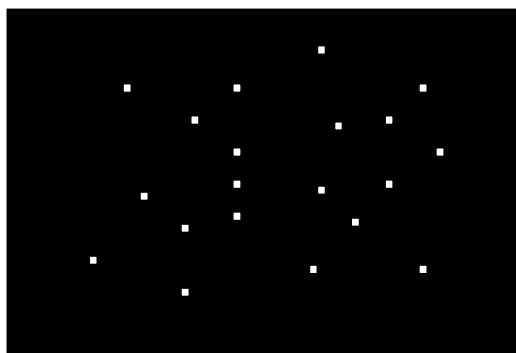
(Caution1) Zone A: Central part (the area surrounded by the upper and lower sides, right and left sides by $1/4H$) with the area that is $1/2$ of the whole
Zone B: Area other than A above

(Caution2) The continuous dots appearing in the slantwise direction or in a cluster state shall be defined as follows:

(4) Wrong lighting



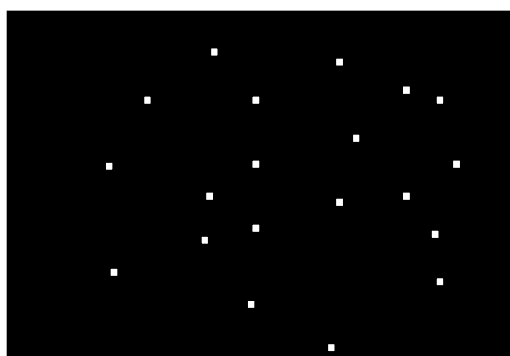
(To the separate PDP service manual)



All-black signal

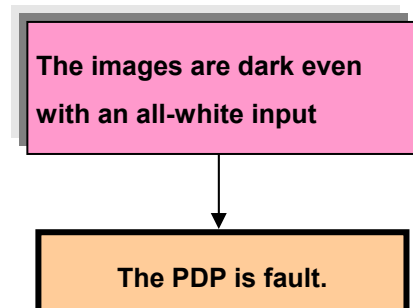


Dot errors change
with no continuity.

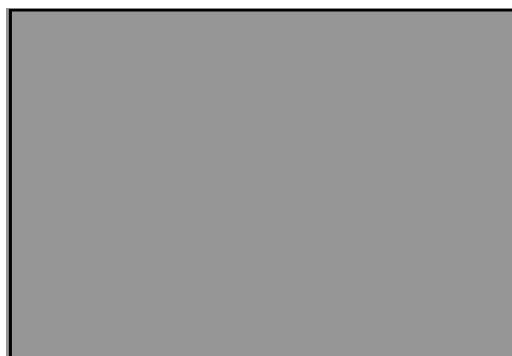


All-black signal

(5) Dark images [Other than the deterioration in brightness as per (1) above]

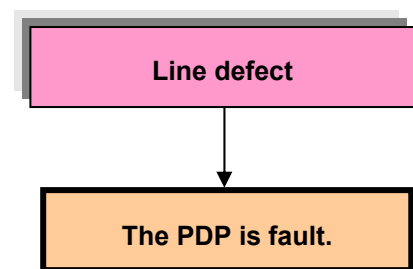


(To the separate PDP service manual)



All-white signal

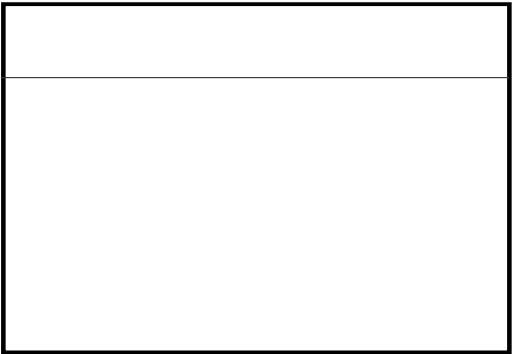
(6) Defect in horizontal lines



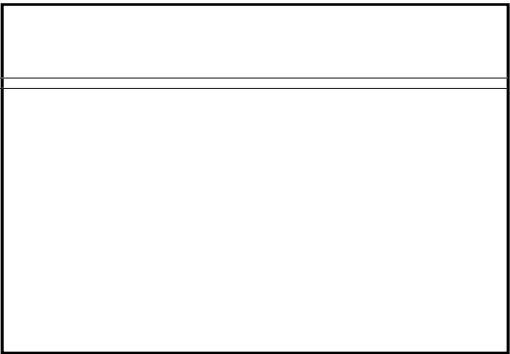
(To the separate PDP service manual)



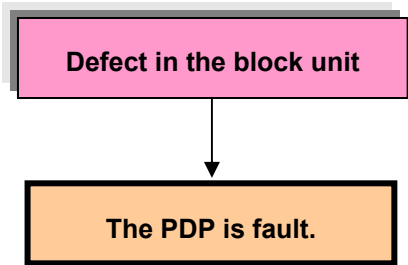
All-white signal



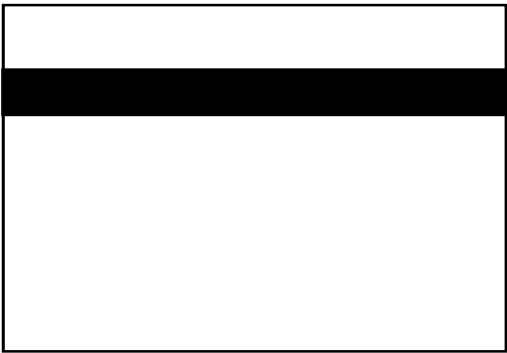
All-white signal



All-white signal



(To the separate PDP service manual)

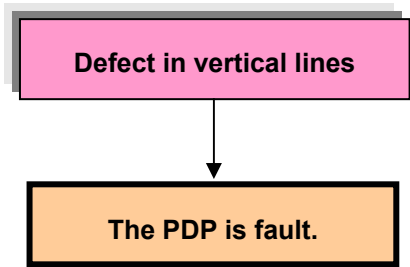


All-white signal

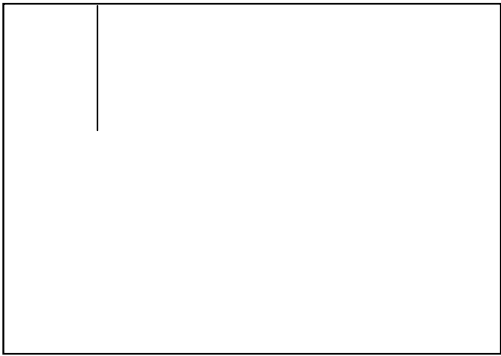


All-white signal

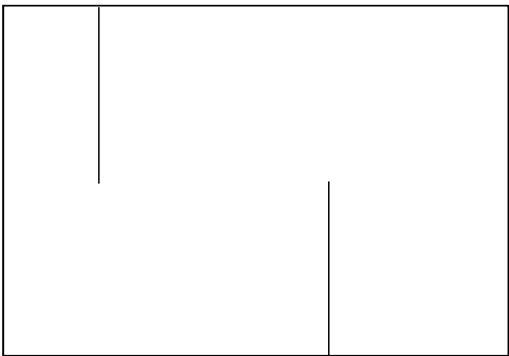
(7) Defect in vertical lines



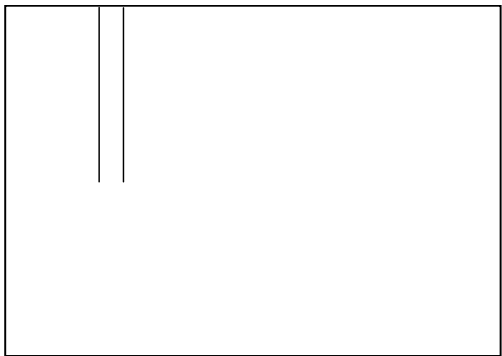
(To the separate PDP service manual)



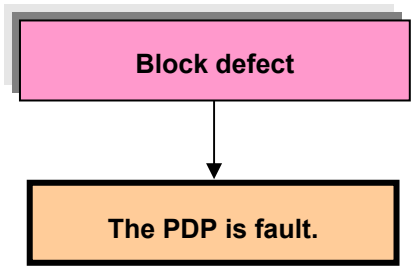
All-white signal



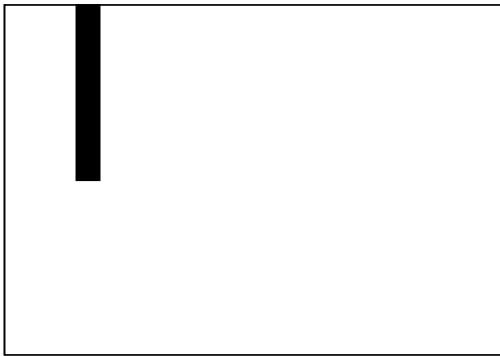
All-white signal



All-white signal



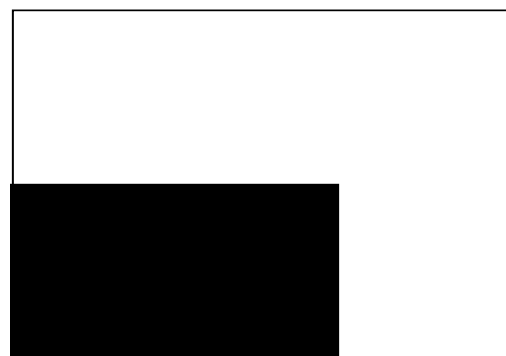
(To the separate PDP service manual)



All-white signal

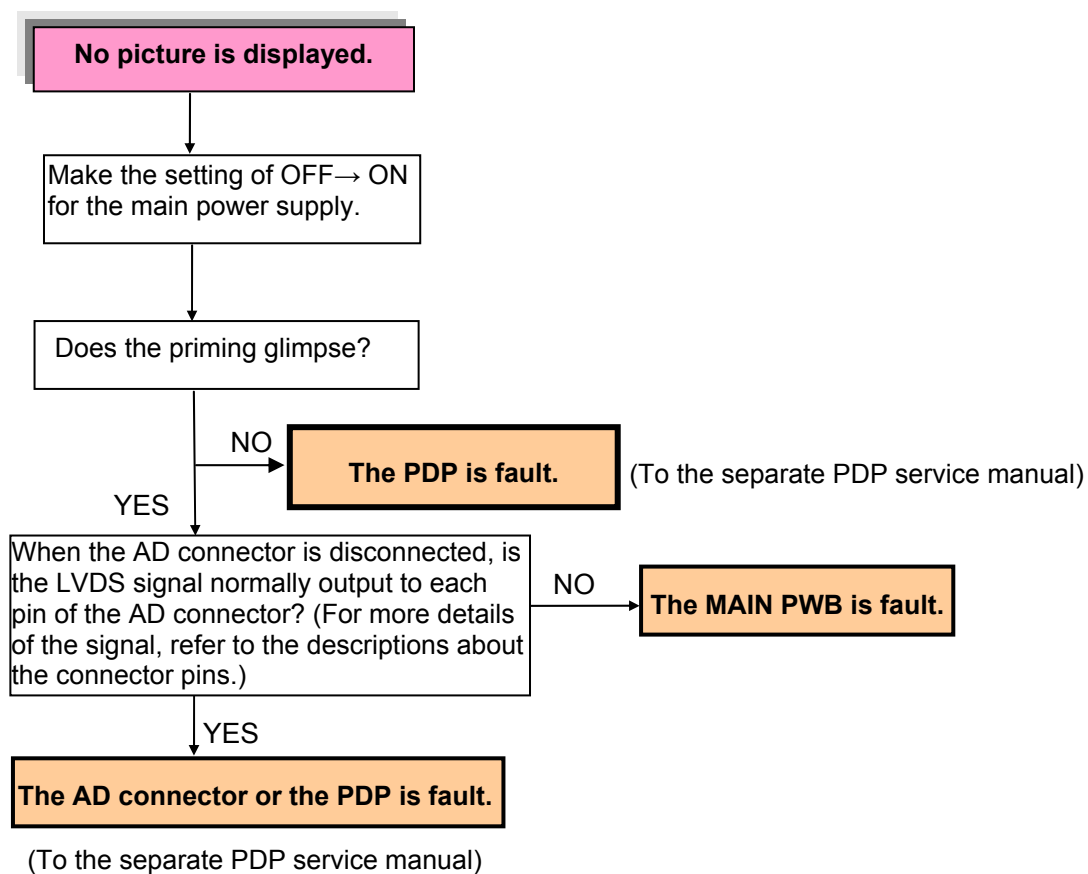


All-white signal



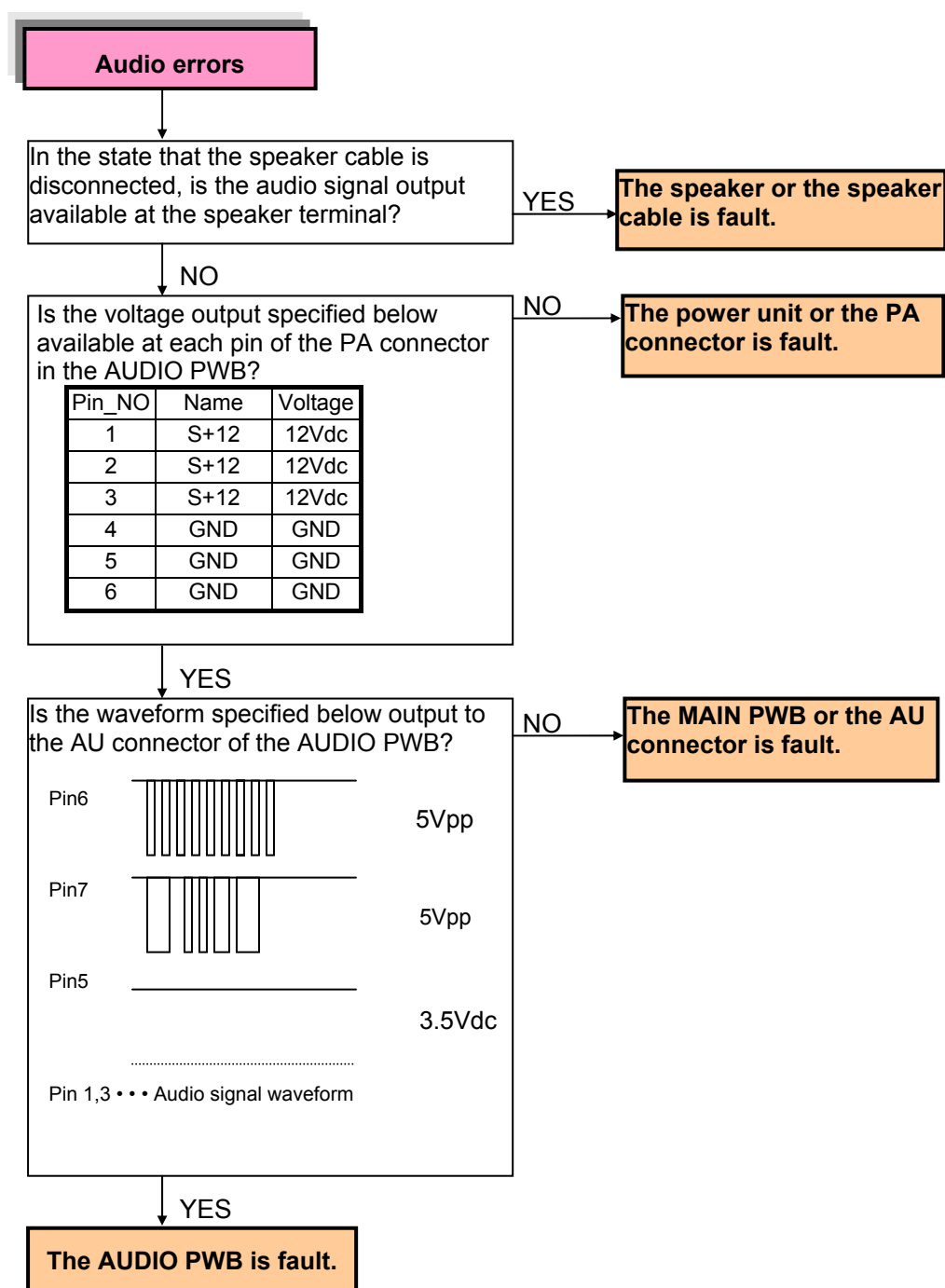
All-white signal

(8) No pictures [(Caution) The voltage outputs of $V_s = 170V$ and $V_d = 64V$, $5V_{dc}$ are always generated, but the LED is not flashing or lighting for alarming. However, the voltage values can differ according to the PDP.]



3. Audio errors

(Caution) In regard to the method of audio input setting, refer to the specifications and the instruction manual to confirm that all the setting is free from errors. Since then, troubleshooting can be carried out. It must be noted that the protector functions and no audio output is available if the opposing electrodes of the speaker output or the speaker output and the ground (GND) are short-circuited. In such a case, turn off the main power supply and make the connections correctly. The protector is reset when the main power supply is turned on after that.



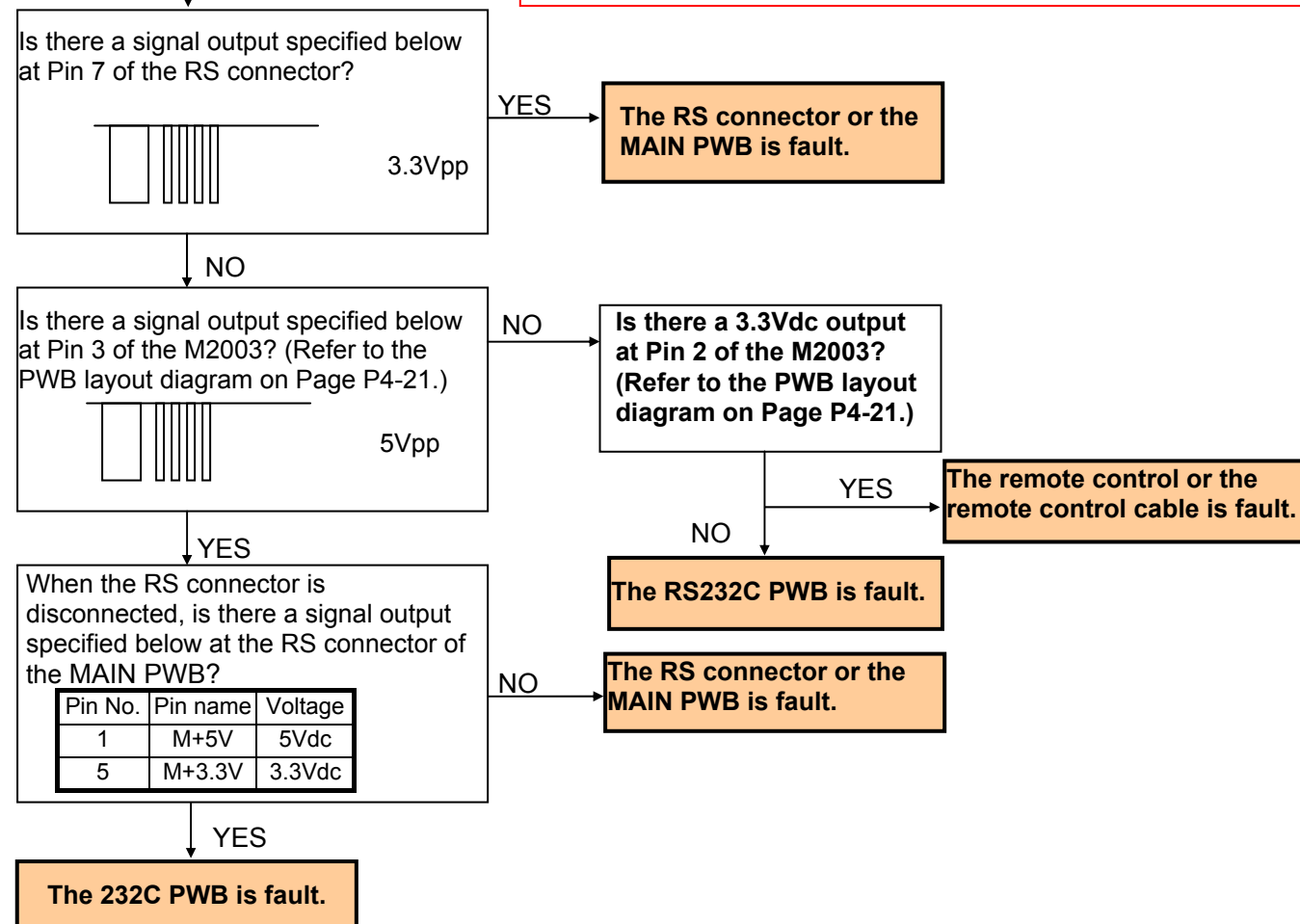
4. Remote control not effective

(1) The wired remote control is not effective.

① When a single item is used

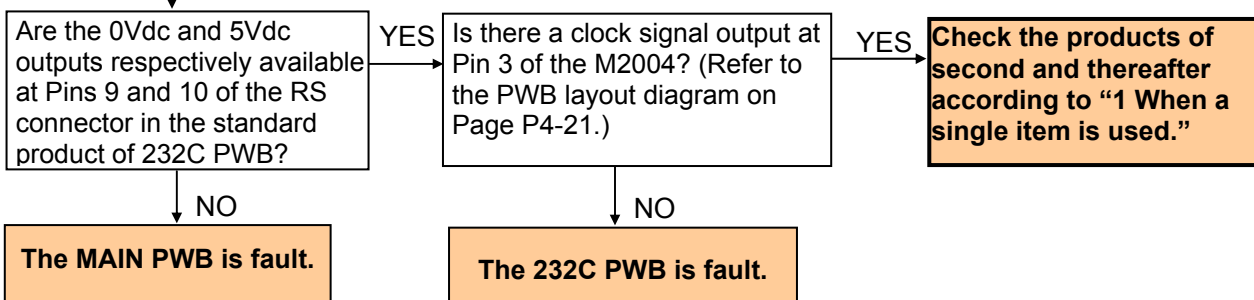
The wired remote control is not effective.

(Caution) The wired remote control is not effective if the setting of [PLE LINK], or [Repeat TIMER] is ON, or if the setting of [ID NUMBER] has been made. Therefore, such a setting should be turned off, without fail. Since then, troubleshooting can be carried out.



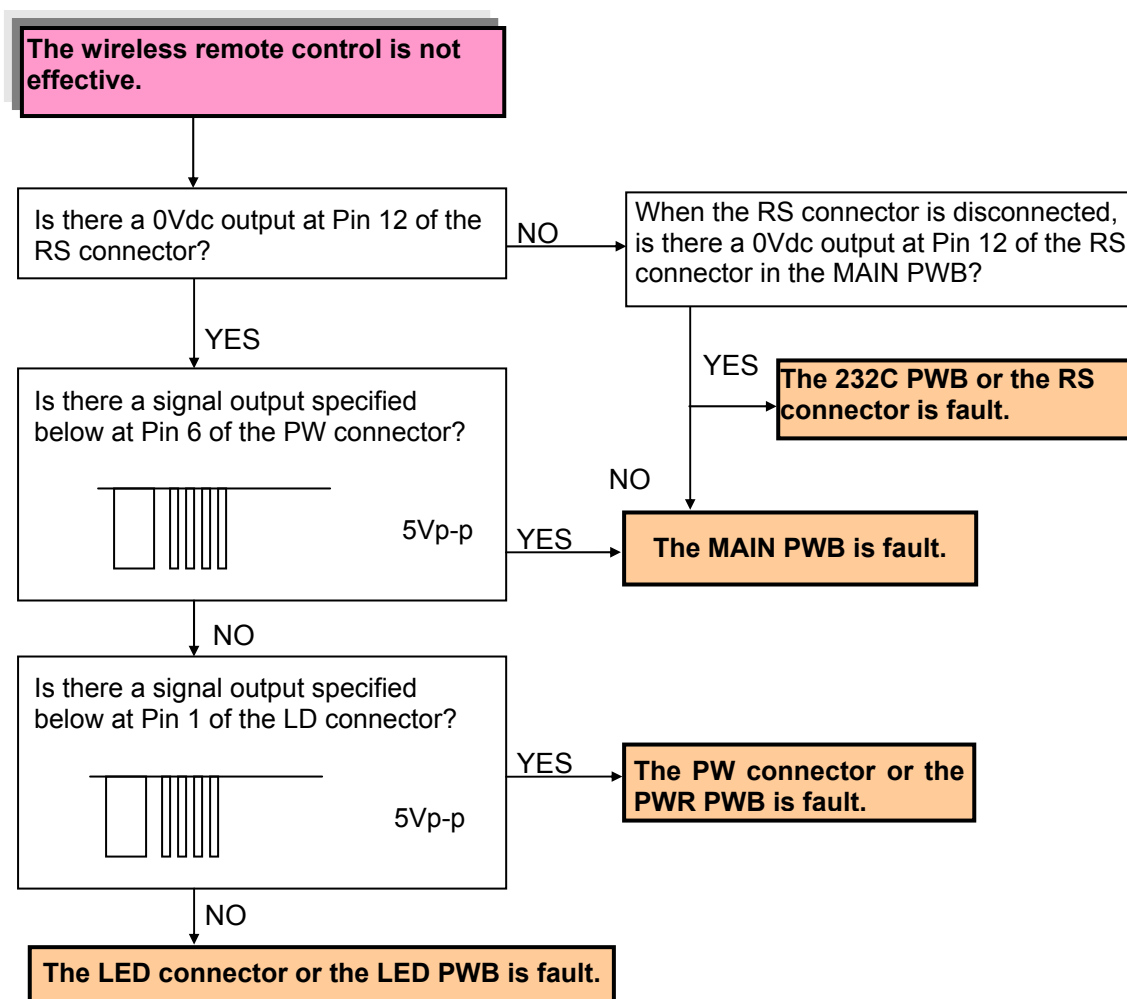
② When a daisy chain (including the video wall) is used

The wired remote control is not effective.



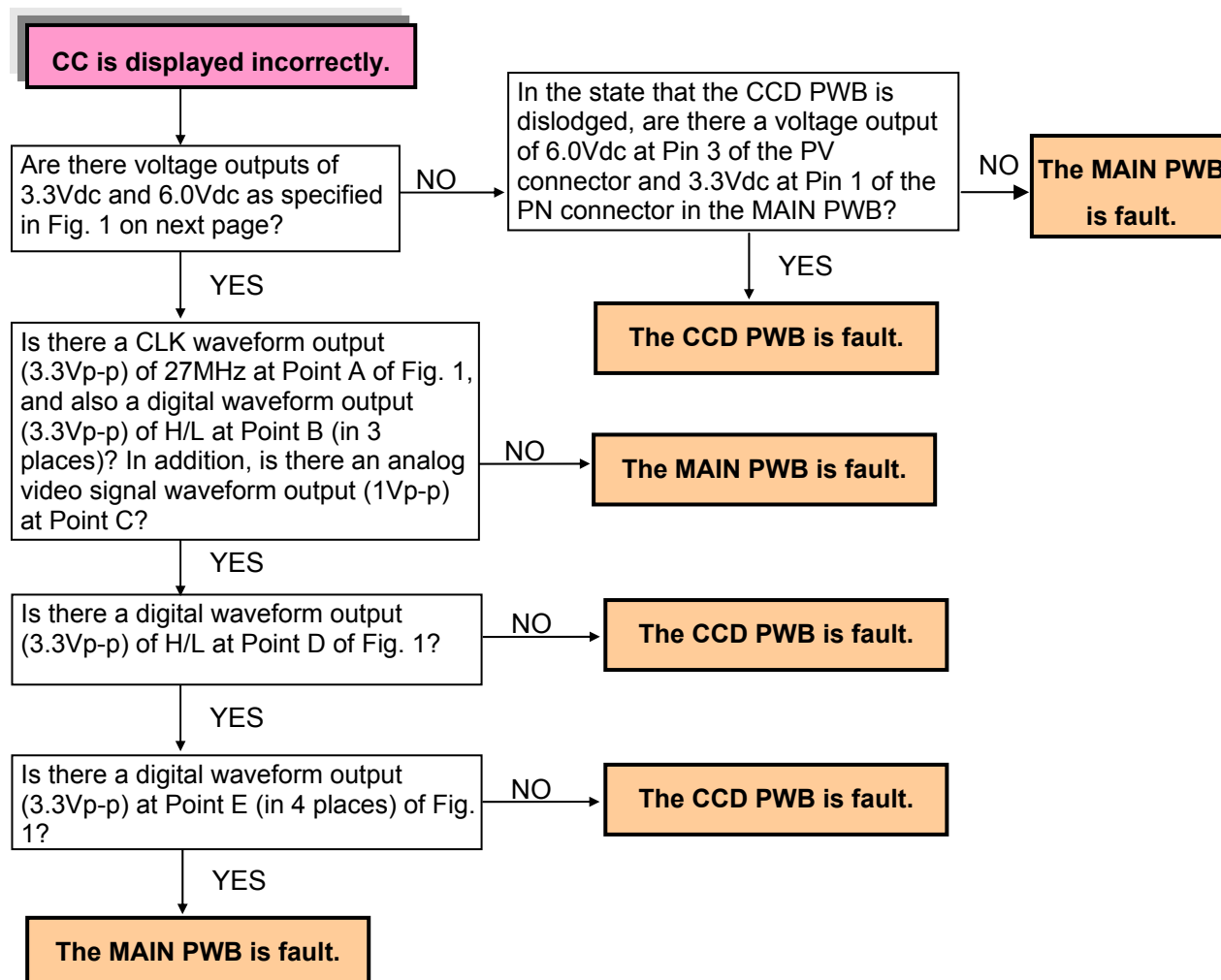
(2) The wireless remote control is not effective.

(Caution) Since the detection of “wired” or “wireless” is conducted for the remote control through the remote terminal, it is necessary to pull out the remote control cable from the remote terminal, without fail. Troubleshooting should be carried out after confirming that “IR REMOTE” is set at ON and that “ID NUMBER” is at ALL according to the user’s menu.



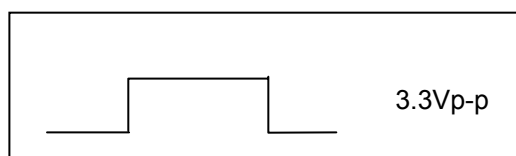
5. The closed caption (CC) is displayed incorrectly. (PX-****A only)

(Caution) Only the models for North America. The PCB-5044 (CCD PWB) is not installed in other models. Checks are needed by applying a signal output to the video input circuit, which is equivalent to the closed caption.

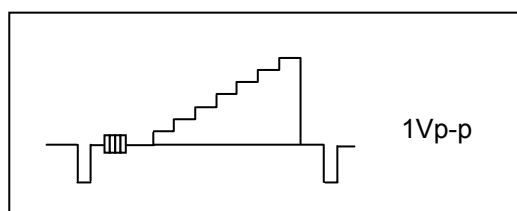


Waveform at Point B/D/E

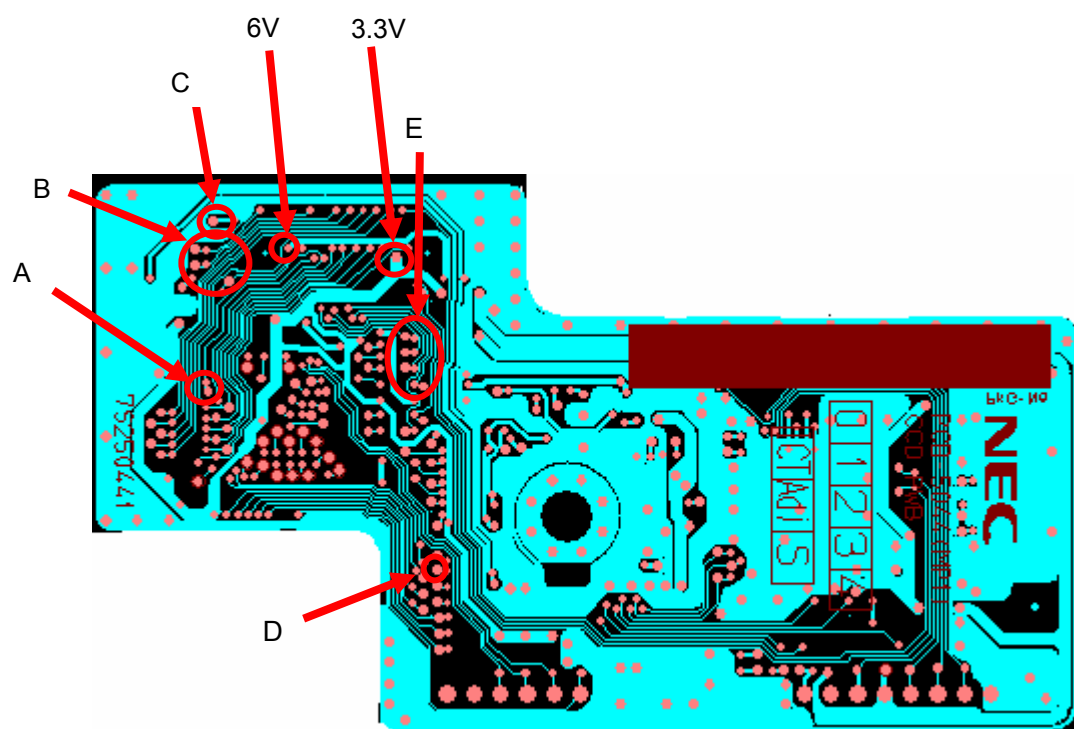
Check point: Check voltage and see whether a change in H/L is present.



Waveform at Point C



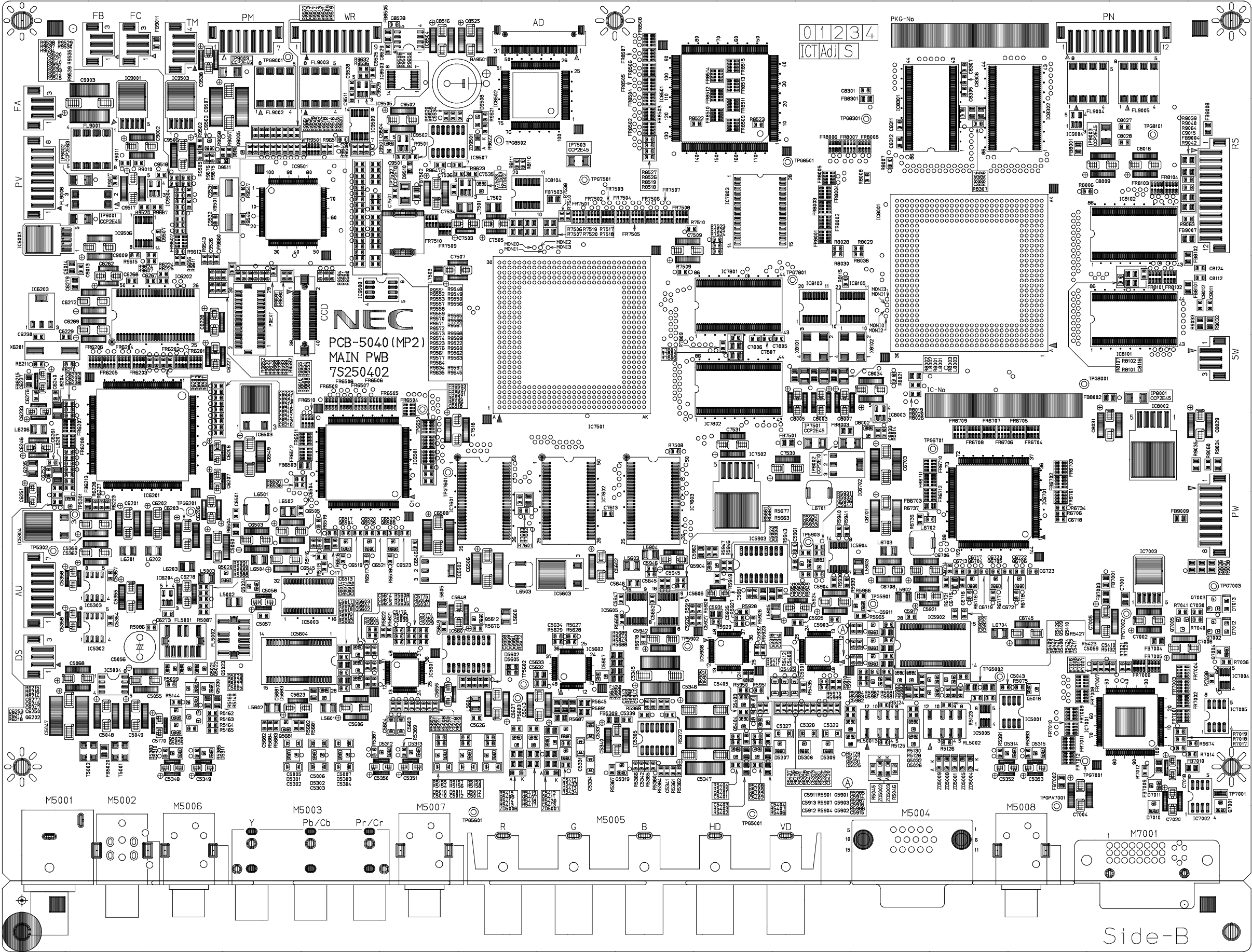
NTSC video signal (with gray scale input)

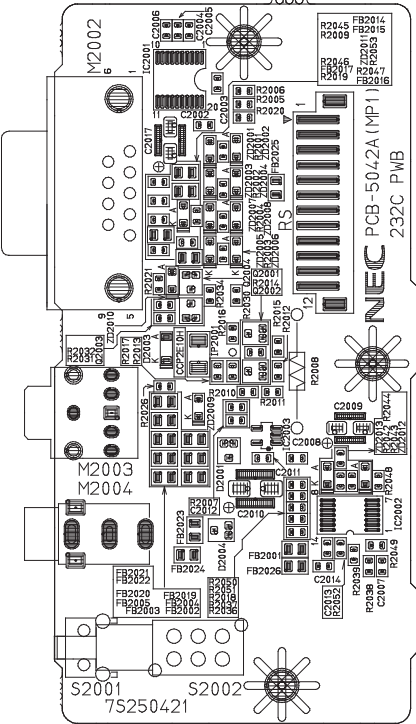


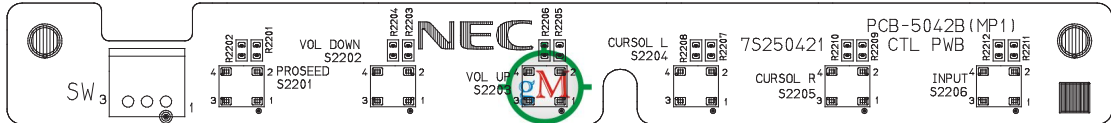
<Fig. 1 CCD PWB Pattern Diagram>

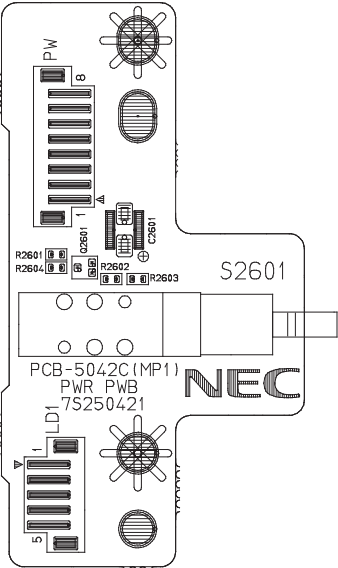
Check point
MAIN PWB

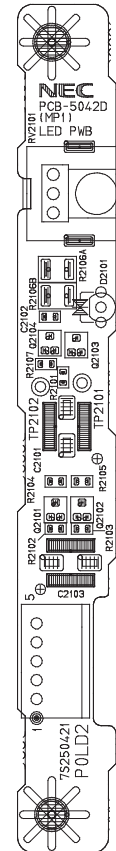
CONFIDENTIAL

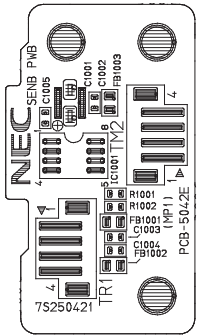


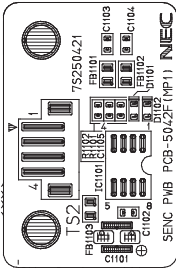


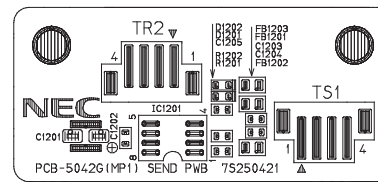














METHOD OF ADJUSTMENTS

■Adjusting conditions

Adjustments should be carried out in the procedures of A to C specified below. However, any adjustments other than the items A to C below are not required.

- A. When the “PDP module” is replaced, adjustments should conform to the adjusting items of [1 and 2] specified below.
- B. When the “POWER UNIT” is replaced, adjustments should conform to the adjusting item of [2] specified below.
- C. When the “MAIN PWB” is replaced, adjustments should conform to the adjusting item of [3] specified below.

■Adjusting items

1. Clearing of the usage time (Using the remote control)

- (1) Press the keys in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to enter the factory adjustment menu.
- (2) Press the [MENU/ENTER] key to select the [USAGE TIME] menu (8/11). Then, the integrated time [34567 (hours)] (example) accumulated till the present time is displayed when the main power supply is turned on (except for the standby mode).

USAGE TIME		
34567H		
232C-ALARM	RX TX	0 0
[MENU/ENTER] NEXT [EXIT] PREV 8/11		

- (3) When the keys are pressed in the order of [MUTE] → POSITION/CONTROL [▲] → POSITION/CONTROL [▼] → [OFF TIMER], the display is cleared to [00000H]. At that time, the characters of [RESET] are displayed for about 5 seconds on the right side of time display.

USAGE TIME		
00000H		RESET
232C-ALARM	RX TX	0 0
[MENU/ENTER] NEXT [EXIT] PREV 8/11		

2. Adjustment of the power unit (Using a screwdriver for general-purpose adjustments)

2-1. For the PX-42VM5/42VP5/42VR5,PX-42XM3/42XR3 Series

2-1-1. Adjustment of the Vs voltage

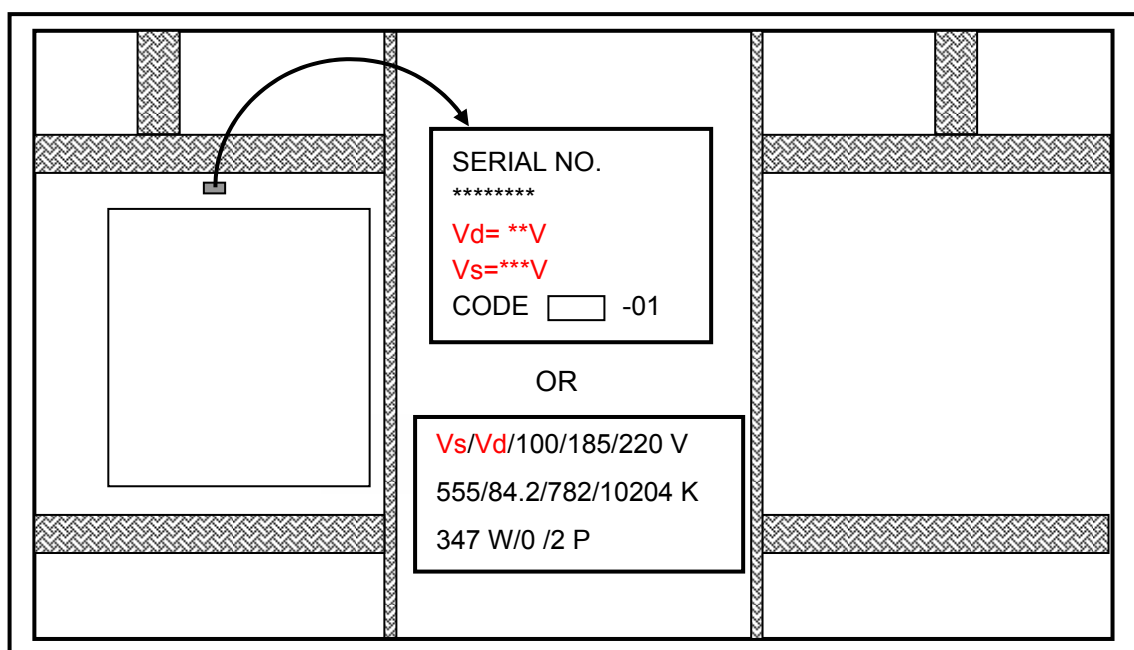
- (1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.
- (2) Turn the volume control (RV203) in the power unit and make adjustments until the voltages of TP204 and TP205 (D, GND) of the power unit attain the voltage values specified for the PDP (Vs value of the voltage regulation indicator label on below the figure) $\pm 1V$.

2-1-2. Adjustment of the Vd voltage

- (1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.
- (2) Turn the volume control (RV204) in the power unit and make adjustments until the voltages of TP206 and TP205 (D, GND) of the power unit attain the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) $\pm 1V$.

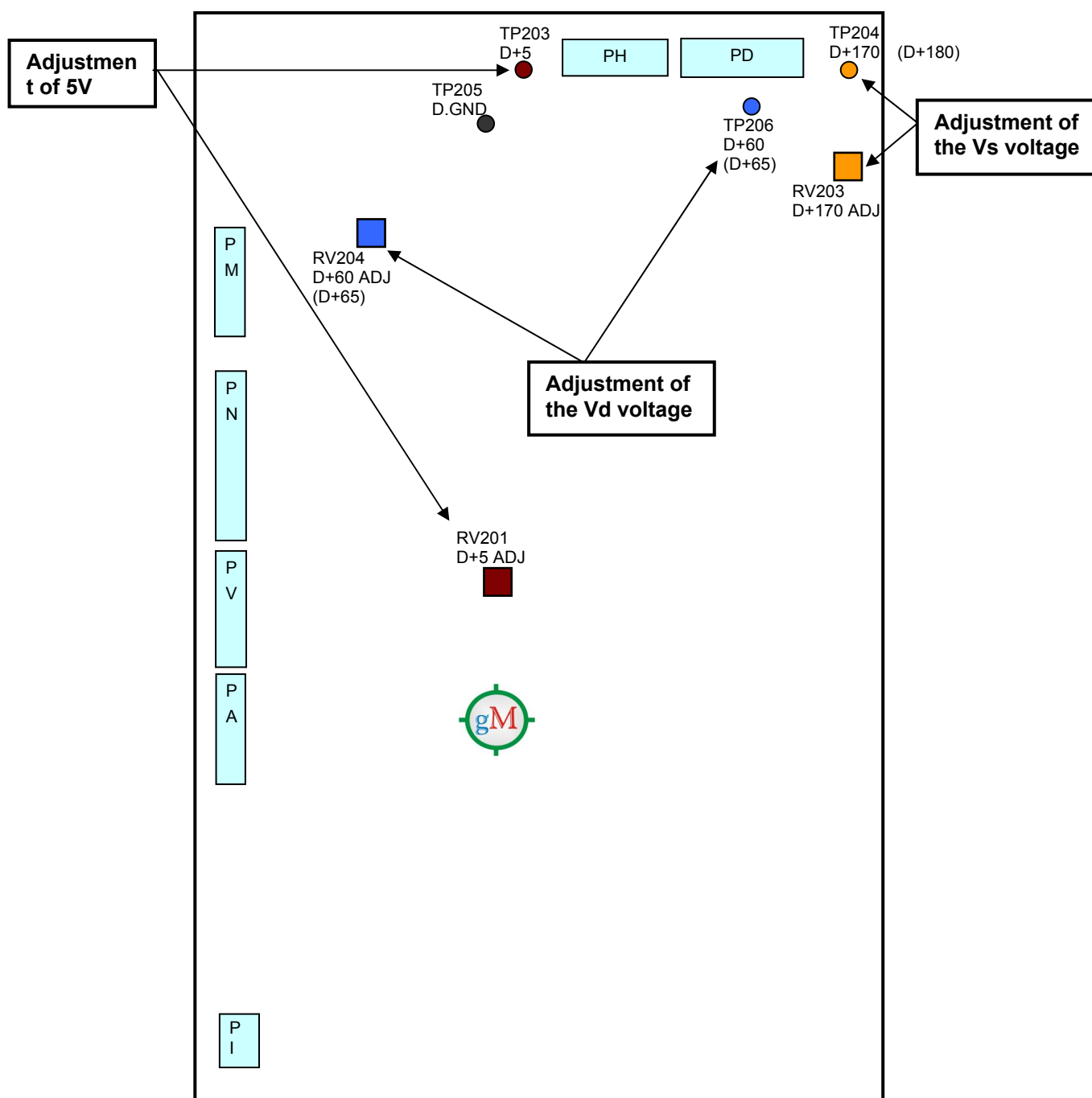
2-1-3. Adjustment of the +5V voltage

- (1) Display a color bar by means of either video signal of VIDEO input, or DVD/HD input, or RGB input.
- (2) Confirm that the voltages of TP203 and TP205 (D, GND) of the power unit are maintained at " $5.15 \pm 0.1V$ ". Otherwise, turn the volume control (RV201) until the voltage attains " $5.15 \pm 0.1V$ ".



(Caution) Rear-side view when the back cover is removed The label is concealed between the MAIN PWB and PDP. Check it by peeping through the space from above. The label position can be changed, without notice.

* Top view of the power unit for the PX-42VM5/42VP5/42VR5,PX-42XM3/42XR3 Series



(Caution) The values in () are applicable to the PX-42XM2 Series.

2-2. For the PX-50XM4/50XR4 Series

2-2-1. Adjustment of the Vs voltage

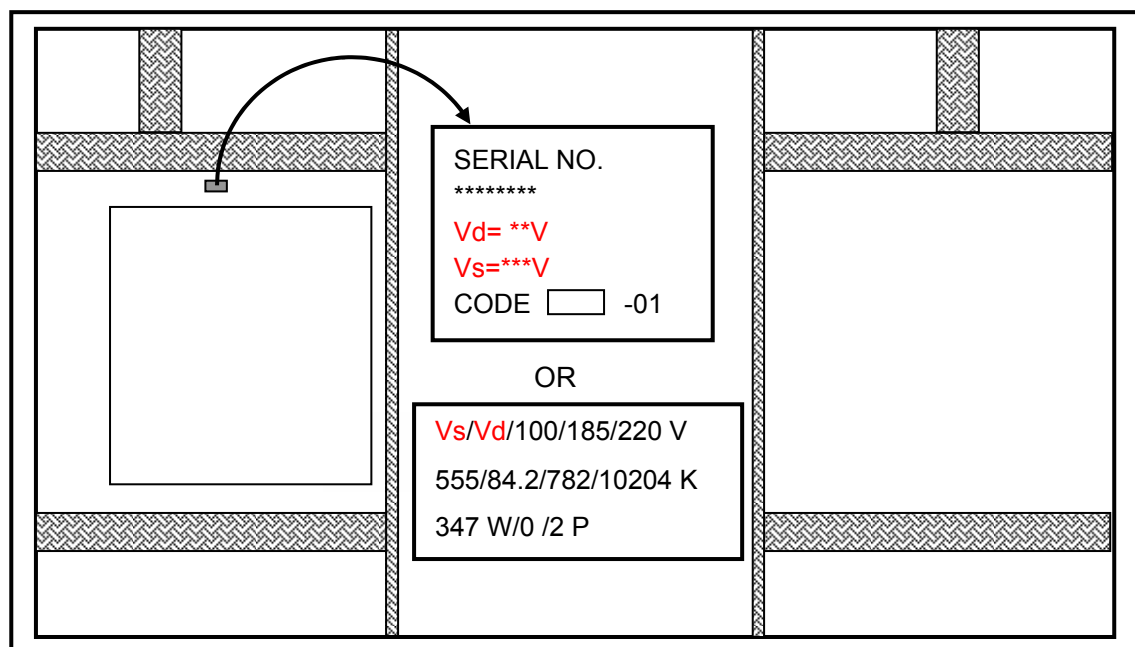
- (1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.
- (2) Turn the volume control (RV6) in the power unit and make adjustments until the voltages of CH2 and CH1 (D, GND) of the power unit attain the voltage values specified for the PDP (Vs value of the voltage regulation indicator label on below the figure) $\pm 1V$.

2-2-2. Adjustment of the Vd voltage

- (1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.
- (2) Confirm that the voltages of CH4 and CH1 (D, GND) of the power unit are maintained at the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) $\pm 1V$.
Otherwise, turn the volume control (RV5) until the voltage attains the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) $\pm 1V$.

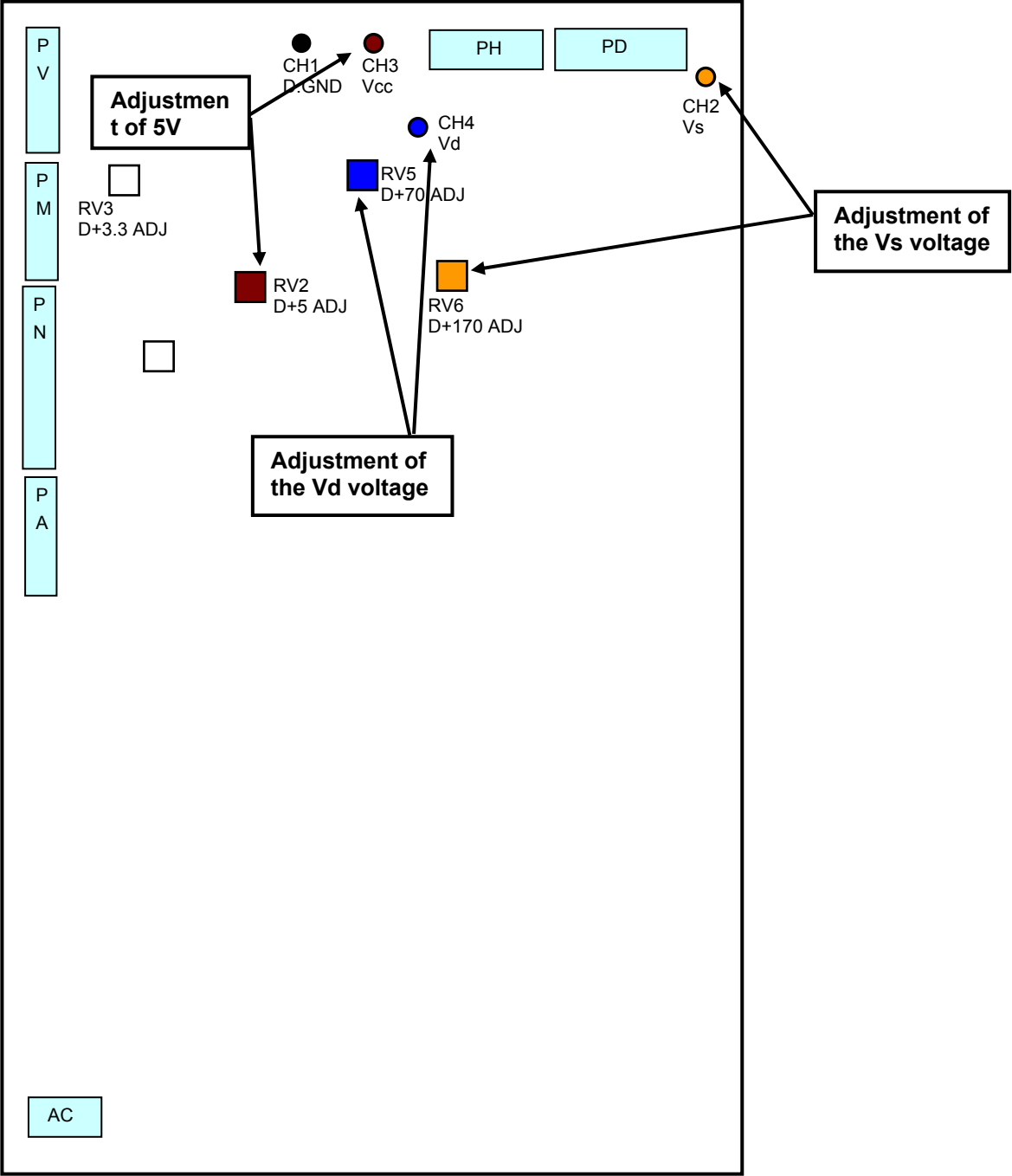
2-2-3. Adjustment of the +5V voltage

- (1) Display a color bar by means of either video signal of VIDEO input, or DVD/HD input, or RGB input.
- (2) Confirm that the voltages of CH3 and CH1 (D, GND) of the power unit are maintained at " $5.15 \pm 0.1V$ ". Otherwise, turn the volume control (RV2) until the voltage attains " $5.15 \pm 0.1V$ ".



(Caution) Rear-side view when the back cover is removed The label is concealed between the MAIN PWB and PDP. Check it by peeping through the space from above. The label position can be changed, without notice.

* Top view of the power unit for the PX-50XM4/50XR4 Series



2-3. For the PX-61XM3/61XR3 Series

2-3-1. Adjustment of the Vs voltage

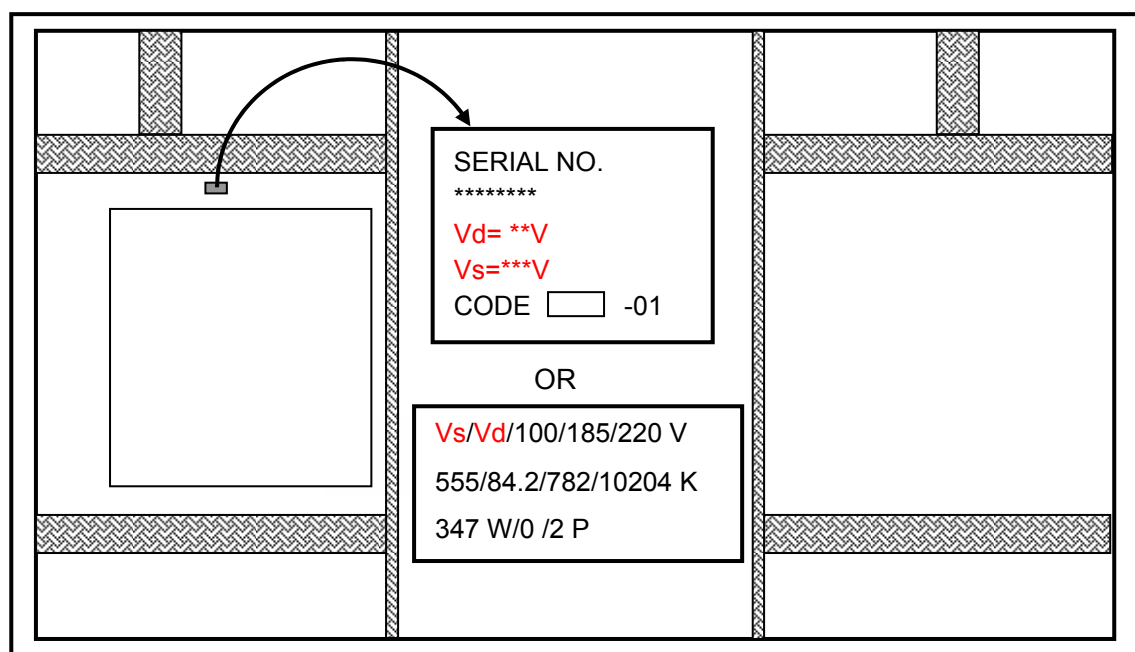
- (1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.
- (2) Turn the volume control (RV6) in the power unit and make adjustments until the voltages of CH2 and CH1 (D, GND) of the power unit attain the voltage values specified for the PDP (Vs value of the voltage regulation indicator label on below the figure) $\pm 1V$.

2-3-2. Adjustment of the Vd voltage

- (1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.
- (2) Confirm that the voltages of CH4 and CH1 (D, GND) of the power unit are maintained at the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) $\pm 1V$.
Otherwise, turn the volume control (RV5) until the voltage attains the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) $\pm 1V$.

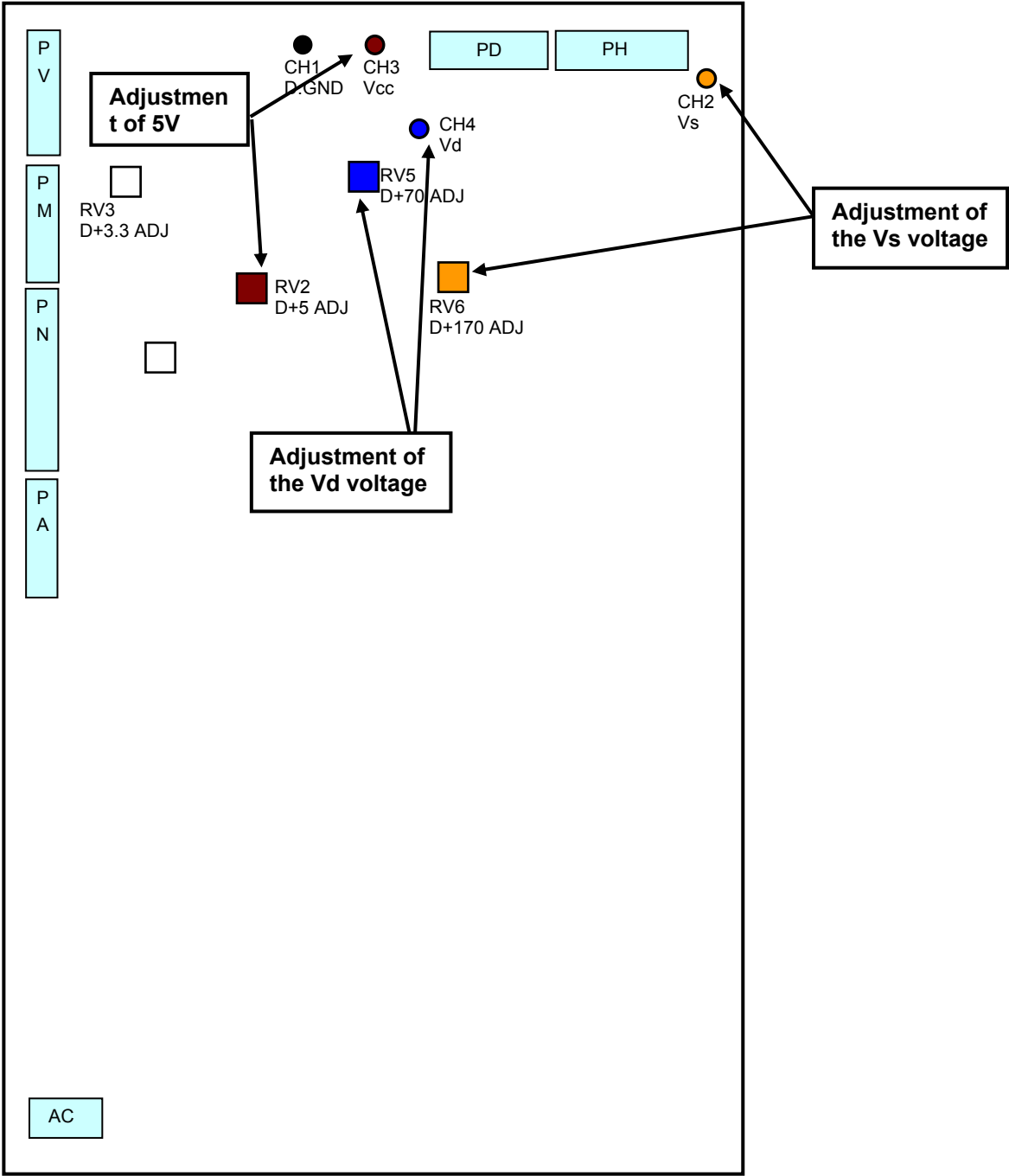
2-3-3. Adjustment of the +5V voltage

- (1) Display a color bar by means of either video signal of VIDEO input, or DVD/HD input, or RGB input.
- (2) Confirm that the voltages of CH3 and CH1 (D, GND) of the power unit are maintained at " $5.15 \pm 0.1V$ ". Otherwise, turn the volume control (RV2) until the voltage attains " $5.15 \pm 0.1V$ ".



(Caution) Rear-side view when the back cover is removed The label is concealed between the MAIN PWB and PDP. Check it by peeping through the space from above. The label position can be changed, without notice.

* Top view of the power unit for the PX-61XM3/61XR3 Series



3. Adjustments after the replacement of the MAIN PWB (Using the remote control)

3-1. Product serial No. registration

- (1) Press the keys in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to enter the factory adjustment menu.
- (2) Press the [MENU/ENTER] key to select the [MONITOR INFORMATION] No. menu. (Example : PX-61XM3A)

MONITOR INFORMATION

MODEL NAME
: PX-61XM3A

SERIAL/NUMBER
:

SOFT WARE VERSION
: F123

USAGE TIME
: 00000H

T1	025	T2	025
T3	025	T4	--

[MENU/ENTER] NEXT [EXIT] PREV

- (3) Press the [WIDE] key 4 times to display a cursor █ in the lower column of [SERIAL/NUMBER].

MONITOR INFORMATION

MODEL NAME
: PX-61XM3A ← (Caution 1)

SERIAL/NUMBER
: █

SOFT WARE VERSION
: F123 ← (Caution 2)

USAGE TIME
: 00000H

T1	025	T2	025
T3	025	T4	--

[MENU/ENTER] NEXT [EXIT] PREV

(Caution 1) No modification is possible here because this modification is already finished by 3-2. Factory shipment setting (initial setting).

(Caution 2) No modification is possible here because registration is already finished at the time of shipment in terms of maintenance parts.

- (4) Moving the POSITION/CONTROL keys of [▲] and [▼], select the numerals and characters of the serial number that is listed in the serial label located on the rear surface of the product. Register the serial number. (Blank → 0 ~ 9 → A ~ Z)



- (5) Moving the POSITION/CONTROL keys of [◀] and [▶], select the next digit by means of a cursor.

- (6) Repeat the processes of (4) and (5) above and register the serial number completely.

• How to read the serial number

Serial No. ① ② ③ ④⑤⑥⑦ ⑧ ⑨

- ① Year of manufacture (lower one digit of the year)
- ② Month of manufacture (January to September = 1 to 9, October = X, November = Y, December = Z)
- ③ GS model: 1, Other than GS model: 0
- ④⑤⑥⑦ Serial numbers of 0001 to 9999. The serial number starts with 0001 in each month of production. There is no duplication or missing of the number in the same month.
- ⑧ Place of manufacture
- ⑨ Control number S→A→M→T→Z→N→K→U→C→W→J→P

(* Arbitrary for the first symbol)

↑

(Example) First unit in March 1999 → 93000019C

First unit in November 2000 → 0Y000019W

(Example) When entering a serial number of [2900123 9Z]

- ① Move the POSITION/CONTROL keys of [▲] and [▼] to select [2].

MONITOR INFORMATION	
MODEL NAME	: PX-61XM3A
SERIAL/NUMBER	: 2
SOFT WARE VERSION	: F123
USAGE TIME	: 00000H
T1 025	T2 025
T3 025	T4 --
[MENU/ENTER] NEXT [EXIT] PREV	

- ② Move the POSITION/CONTROL keys of [◀] and [▶] to select the next digit.

MONITOR INFORMATION	
MODEL NAME	: PX-61XM3A
SERIAL/NUMBER	: 2
SOFT WARE VERSION	: F123
USAGE TIME	: 00000H
T1 025	T2 025
T3 025	T4 --
[MENU/ENTER] NEXT [EXIT] PREV	

- ③ Repeat the procedures of ① and ② above, and enter all inputs of [2900123 9Z] from the left side.

MONITOR INFORMATION	
MODEL NAME	: PX-61XM3A
SERIAL/NUMBER	: 29001230 9Z
SOFT WARE VERSION	: F123
(Caution) Give a one-digit space between the 7th and 8th digits.	
T1 025	T2 025
T3 025	T4 --
[MENU/ENTER] NEXT [EXIT] PREV	

- (7) Following the above, setting must be carried out without fail according to “3-2. Factory shipment setting (Initial setting)”

3-2.Factory shipment setting (Initial setting)

- (1) Press the [MENU/ENTER] ke to select the [FUNCTION] menu.
- (2) Move the POSITION/CONTROL keys of [▲] and [▼] to the item of [SHIP]. Then, move the POSITION/CONTROL keys of [◀] and [▶] to select [DESTINATION ALPHABETS] shown below. (The asterisks * shown below denote the numerals or the characters.)

J : PX-*****J	JW : OEM Specifications for use in Japan
A : PX-*****A	AW : OEM Specifications for North America
G : PX-*****G	GW : OEM Specifications for European countries
W : PX-*****W	WW : OEM Specifications for zones other than the above

FUNCTION			
SCART	OFF	SAFEL MODE	---
SHIP	A	PLE TEST	OFF --
LIMIT-VD	OFF	VD2 VLIM	5HZ
LIMIT-PC	ON	VD2 YCORB	--
GAMMA MD	12	VD2 YCOREN	ON
VOL OFFSET	2	VD2 CORB	--
FHCRT COMP	3	VD2 COREN	ON
ACTVH TIME	2	VD OUT	10
PSC-T	OFF	ROTATE PTN	1
EXT-PC	OFF	BLUE GAIN	OFF
[MENU/ENTER] NEXT [EXIT] PREV			

- (3) Press the keys in the order of [MUTE] → POSITION/CONTROL [▲] → POSITION/CONTROL [▼] → [OFF TIMER] to make “Factory shipment setting”. When “Factory shipment setting” is executed, the red characters of [SET] is shown for about 5 seconds on the right side of the [DESTINATION ALPHABETS]. The setting is finished when these red characters of [SET] go out. In regard to the factory shipment setting values, refer to the descriptions given below.

FUNCTION			
SCART	OFF	SAFEL MODE---	
SHIP	A	PLE TEST OFF --	
LIMIT-VD	OFF	VD2 VLIM	5HZ
LIMIT-PC	ON	VD2 YCORB	1
GAMMA MD	10	VD2 YCOREN	ON
VOL OFFSET	2	VD2 CORB	1
FHCRT COMP	3	VD2 COREN	ON
ACTVH TIME	2	VD OUT	8
PSC-T	OFF	ROTATE PTN	1
EXT-PC	OFF	BLUE GAIN	OFF
[MENU/ENTER] NEXT [EXIT] PREV			

(4) Press the keys of the remote control in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to withdraw from the Factory shipment setting.

[Factory shipment setting values]

1. Initial setting values for the user menu

MENU	A,AW,G,GW,W,WW	J,JW
POWER ON/OFF	ON	ON
VOLUME	10step	10step
INPUT MODE	VIDEO1	VIDEO1
WIDE MODE	STADIUM	STADIUM
AUTO PICTURE	OFF (RGB1~3)	OFF (RGB1~3)
HD SELECT	1080B *	1080B
LANGUAGE	ENGLISH	JAPANEASE
COLOR SYSTEM	AUTO	AUTO
All items intended to recover the initial values through the selection of [All Reset] in the user menu		Initial values

* 1080I for *PX-***R**

2. Field menu initial setup values (applicable in common to all models)

MENU		A	G	W	J	AW,GW,WW,JW
SERVICE	SHIP	A	G	W	J	AW,GW,WW,JW
	PSC-LIMIT	OFF	OFF	OFF	OFF	OFF
	LIMIT-PC	ON	ON	ON	ON	ON
	U-SCAN	OFF	OFF	OFF	OFF	OFF
	V-FREQ OT	AUTO	60Hz	60Hz	AUTO	AUTO
	V-FREQ VD	AUTO	60Hz	60Hz	AUTO	AUTO
	SYNLEVEL1	TTL	TTL	TTL	TTL	TTL
	SYNLEVEL2	TTL	TTL	TTL	TTL	TTL
	SUB-ORB *1	ON	ON	ON	ON	ON
	PIC FREEZE *1	ON	ON	ON	ON	ON
MONITOR INFORMATION	MODEL NAME	PX-****A	PX-****G	PX-****W	PX-****J	*2

*1:PX-50XM4/50XR4,PX-61XM3/61XR3 Series only.

*2:Monitor information when SHIP is for AW, GW, WW, JW setup

PX-42VM5/42VP5/42VR5 Series: 42-WVGA

PX-42XM3/42XR3 Series: 42-WXGA,

PX-50XM4/50XR4 Series: 50-WXGA,

PX-61XM3/61XR3 Series: 61-WXGA,

3. Initial setting values for the Factory shipment setting menu The table shown below specifies only the items that can be changed in the factory adjusting mode. Therefore, any setting values of the items not specified below cannot be modified.

MENU		A,AW	G,GW	W,WW	J,JW
FUNCTION	SHIP	A or AW	G or GW	W or WW	J or JW
	LIMIT-PC	ON	ON	ON	ON
MONITOR INFORMATION	SERIAL/ NUMBER	-	-	-	-

[Materials for reference]

1. Signal generator

(1) Digital RGB

, Component signal generator

- Equivalent to the VIDEO GENERATOR LT1615 (made by LEADER)
- Equivalent to the PANEL LINK ADAPTER LT9217 (made by LEADER)
- Equivalent to the VIDEO ENCODER LT1606 (made by LEADER)

(2) NTSC signal generator

- Equivalent to the NTSC PATTERN GENERATOR LCG-403YC (made by LEADER)

(3) PAL signal generator

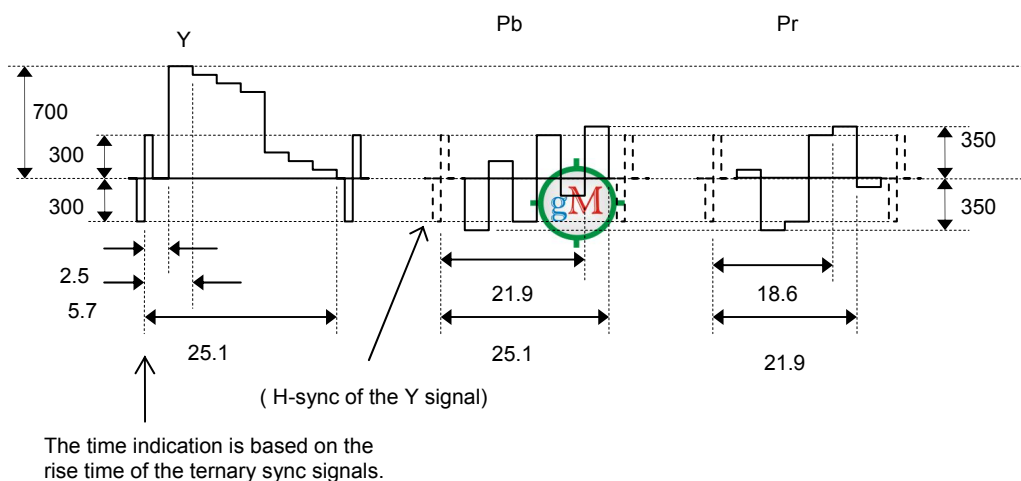
- Equivalent to the COLOR BAR PATTERN GENERATOR PM5518 (made by PHILIPS)

2. VIDEO input

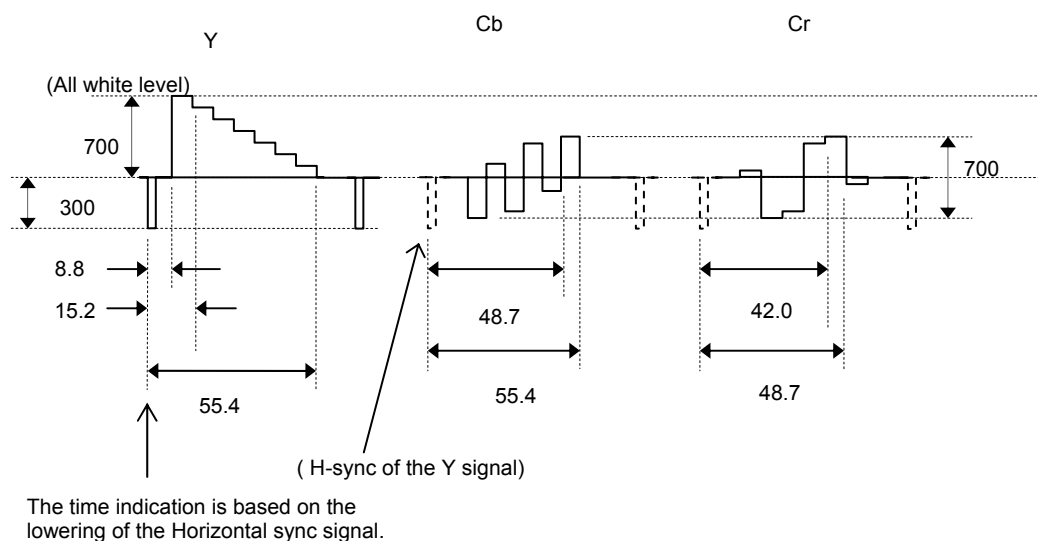
Input: Composite video input or S-terminal input

3. DVD/HD/DTV inputs

3-1. HD: Y/Pb/Pr component inputs, ternary sync signals



3-2. DVD: Y/Cb/Cr component inputs



4. RGB inputs

1) Horizontal sync period

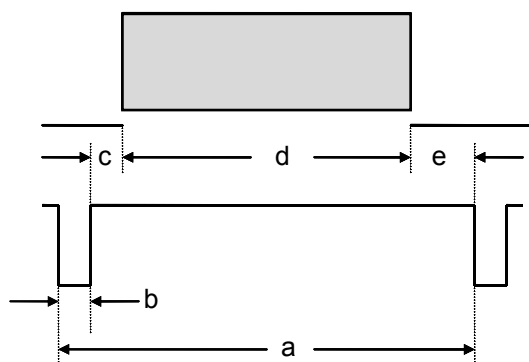
Video signal

0.7Vp-p

Sync signal

TTL level

Positive/negative polarity



2) Vertical sync period

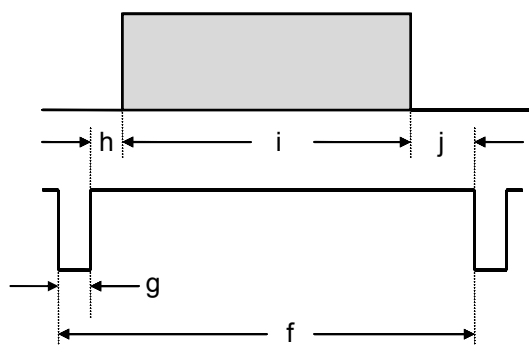
Video signal

0.7Vp-p

Sync signal

TTL level

Positive/negative polarity



For the respective inspection signals, the above "a" to "j" shall be listed on the next page and thereafter.

5. RGB/PC signal timing table

(Caution 1) For HDCP non-application products, the signals of the PC mode 1 ~ 89 can be received. For HDCP application products, the signals of the PC mode 1 ~ 98 can be received.

(Caution 2) The received PC mode number specified below is displayed in the memory column of the user menu "Information."

PC mode	1	2	3	4	5
Signal name	VU-6010 NTSC	VU-6010 PAL/SECAM	NOT USED	PC98 400@70Hz	PC98 480@60Hz
Definition	640*240	768*288		640*400	640*480
Dot clock frequency (MHz)	12.214	14.752		25.175	25.175
H frequency (kHz)	15.734	15.557		31.469	31.469
V frequency (Hz)	59.94	50.39		70.086	59.94
H total (uS)	63.534	64.262		31.778	31.778
[a] (dots)	776	948		800	800
H display period (uS)	52.4	52.06		25.422	25.422
[d] (dots)	640	768		640	640
H front porch (uS)	1.146	1.288		0.675	0.596
[c] (dots)	14	19		17	15
H sync pulse width (uS)	8.76	8.677		2.542	3.813
[b] (dots)	107	128		64	96
H back porch (uS)	1.228	2.237		3.138	1.946
[e] (dots)	15	33		79	49
V total (mS)	16.652	20.055		14.268	16.683
[f] (line)	262	312		449	525
V display period (mS)	15.3	18.513		12.711	15.253
[i] (line)	240	288		400	480
V front porch (mS)	0.191	0.321		0.413	0.191
[h] (line)	3	5		13	6
V sync pulse width (mS)	1.144	1.093		0.064	0.064
[g] (line)	18	17		2	2
V back porch (mS)	0.064	0.064		1.08	1.176
[j] (line)	1	1		34	37
H sync polarity	Neg	Neg		Neg	Neg
V sync polarity	Neg	Neg		Neg	Neg
Scan type	Interlaced	Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	6	7	8	9	10
Signal name	MAC@13"	VESA 480@72Hz	VESA 480@75Hz	VESA 480@85Hz	NOT USED
Definition	640*480	640*480	640*480	640*480	
Dot clock frequency (MHz)	30.24	31.5	31.5	36.0	
H frequency (kHz)	35	37.861	37.5	43.269	
V frequency (Hz)	66.667	72.809	75	85.008	
H total (uS) (dots)	28.571 864	26.413 832	26.667 840	23.111 832	
H display period (uS) (dots)	21.164 640	20.317 640	20.317 640	17.778 640	
H front porch (uS) (dots)	2.116 64	0.762 24	0.508 16	1.556 56	
H sync pulse width (uS) (dots)	2.116 64	1.27 40	2.032 64	1.556 56	
H back porch (uS) (dots)	3.175 96	4.064 128	3.81 120	2.222 80	
V total (mS) (line)	15 525	13.735 520	13.333 500	11.764 509	
V display period (mS) (line)	13.714 480	12.678 480	12.8 480	11.093 480	
V front porch (mS) (line)	0.086 3	0.237 9	0.027 1	0.023 1	
V sync pulse width (mS) (line)	0.086 3	0.079 3	0.08 3	0.069 3	
V back porch (mS) (line)	1.114 39	0.739 28	0.427 16	0.578 25	
H sync polarity V sync polarity	Sync on G Sync on G	Neg Neg	Neg Neg	Neg Neg	
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	
Remarks					

PC mode	11	12	13	14	15
Signal name	VESA 600@56Hz	VESA 600@60Hz	VESA 600@72Hz	VESA 600@75Hz	VESA 600@85Hz
Definition	800*600	800*600	800*600	800*600	800*600
Dot clock frequency (MHz)	36	40	50	49.5	56.25
H frequency (kHz)	35.156	37.879	48.077	46.875	53.674
V frequency (Hz)	56.25	60.317	72.188	75	85.061
H total (uS) (dots)	28.444 1024	26.4 1056	20.8 1040	21.333 1056	18.631 1048
H display period (uS) (dots)	22.222 800	20 800	16 800	16.162 800	14.222 800
H front porch (uS) (dots)	0.667 24	1 40	1.12 56	0.323 16	0.569 32
H sync pulse width (uS) (dots)	2 72	3.2 128	2.4 120	1.616 80	1.138 64
H back porch (uS) (dots)	3.556 128	2.2 88	1.28 64	3.232 160	2.702 152
V total (mS) (line)	17.778 625	16.579 628	13.853 666	13.333 625	11.756 631
V display period (mS) (line)	17.067 600	15.84 600	12.48 600	12.8 600	11.179 600
V front porch (mS) (line)	0.028 1	0.026 1	0.77 37	0.021 1	0.019 1
V sync pulse width (mS) (line)	0.057 2	0.106 4	0.125 6	0.064 3	0.056 3
V back porch (mS) (line)	0.626 22	0.607 23	0.478 23	0.448 21	0.503 27
H sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
V sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	16	17	18	19	20
Signal name	MAC@16"	I/O data wide	NOT USED	VESA wide (NEC1)	NOT USED
Definition	832*624	852*480		848*480	
Dot clock frequency (MHz)	57.2832	34.006		33.75	
H frequency (kHz)	49.725	31.722		31.02	
V frequency (Hz)	74.55	59.966		60	
H total (uS) (dots)	20.111 1152	31.524 1072		32.237 1088	
H display period (uS) (dots)	14.524 832	25.055 852		25.126 848	
H front porch (uS) (dots)	0.559 32	0.659 22		0.474 16	
H sync pulse width (uS) (dots)	1.117 64	3.764 128		3.319 112	
H back porch (uS) (dots)	3.91 224	2.047 70		3.319 112	
V total (mS) (line)	13.414 667	16.676 529		16.667 517	
V display period (mS) (line)	12.549 624	15.132 480		15.474 480	
V front porch (mS) (line)	0.02 1	0.378 12		0.193 6	
V sync pulse width (mS) (line)	0.06 3	0.095 3		0.258 8	
V back porch (mS) (line)	0.784 39	1.072 34		0.741 23	
H sync polarity	Sync on G	Neg		Pos.	
V sync polarity	Sync on G	Neg		Pos.	
Scan type	Non Interlaced	Non Interlaced		Non Interlaced	
Remarks					

PC mode	21	22	23	24	25
Signal name	NOT USED	VESA wide (NEC4)	NOT USED	VESA 768@60Hz	VESA 768@70Hz
Definition		1360*768		1024*768	1024*768
Dot clock frequency (MHz)		85.5		65	75
H frequency (kHz)		47.712		48.363	56.476
V frequency (Hz)		60.015		60.004	70.069
H total (uS) (dots)		20.959 1792		20.677 1344	17.707 1328
H display period (uS) (dots)		15.906 1360		15.754 1024	13.653 1024
H front porch (uS) (dots)		0.749 64		0.369 24	0.32 24
H sync pulse width (uS) (dots)		1.31 112		2.092 136	1.813 136
H back porch (uS) (dots)		2.994 256		2.462 160	1.92 144
V total (mS) (line)		16.662 795		16.666 806	14.272 806
V display period (mS) (line)		16.097 768		15.88 768	13.599 768
V front porch (mS) (line)		0.063 3		0.062 3	0.053 3
V sync pulse width (mS) (line)		0.126 6		0.124 6	0.106 6
V back porch (mS) (line)		0.377 18		0.6 29	0.513 29
H sync polarity		Pos.		Neg.	Neg.
V sync polarity		Pos.		Neg.	Neg.
Scan type		Non Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	26	27	28	29	30
Signal name	VESA 768@75Hz	VESA 768@85Hz	MAC@19"	VESA 1024@60Hz	VESA 1024@75Hz
Definition	1024*768	1024*768	1024*768	1280*1024	1280*1024
Dot clock frequency (MHz)	78.75	94.5	80	108	135
H frequency (kHz)	60.023	68.677	60.24	63.981	79.976
V frequency (Hz)	75.029	84.997	74.93	60.02	75.025
H total (uS)	16.66	14.561	16.600	15.63	12.501
(dots)	1312	1376	1328	1688	1688
H display period (uS)	13	10.836	12.8	11.852	9.481
(dots)	1024	1024	1024	1280	1280
H front porch (uS)	0.203	0.508	0.4	0.444	0.119
(dots)	16	48	32	48	2
H sync pulse width (uS)	1.219	1.016	1.2	1.037	1.067
(dots)	96	96	96	112	144
H back porch (uS)	2.235	2.201	2.2	2.296	1.837
(dots)	176	208	176	248	248
V total (mS)	13.328	11.765	13.347	16.661	13.329
(line)	800	808	804	1066	1066
V display period (mS)	12.795	11.183	12.749	16.005	12.804
(line)	768	768	768	1024	1024
V front porch (mS)	0.017	0.015	0.050	0.016	0.013
(line)	1	1	3	1	1
V sync pulse width (mS)	0.05	0.044	0.050	0.047	0.038
(line)	3	3	3	3	3
V back porch (mS)	0.466	0.524	0.498	0.594	0.475
(line)	28	36	30	38	38
H sync polarity	Pos.	Pos.	—	Pos.	Pos.
V sync polarity	Pos.	Pos.	—	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	31	32	33	34	35
Signal name	IDC-3000G PAL 625P	IDC-3000G NTSC 525P	HDTV-J	DTV (480P)	DTV (720P)
Definition	768*576	640*480	1920*1035	644*483	1280*720
Dot clock frequency (MHz)	29.687	24.39	74.25	24.37	74.25
H frequency (kHz)	31.389	31.47	33.75	31.469	45.000
V frequency (Hz)	50	59.9	60	59.94	60
H total (uS) (dots)	31.933 948	31.775 775	29.63 2200	31.777 774	22.222 1650
H display period (uS) (dots)	25.87 768	26.24 640	25.86 1920	26.427 644	17.239 1280
H front porch (uS) (dots)	0.269 8	0.41 10	0.59 44	0.75 18	0.943 70
H sync pulse width (uS) (dots)	2.526 75	2.46 60	0.59 44	2.35 57	1.077 80
H back porch (uS) (dots)	3.267 97	2.665 65	2.59 192	2.25 55	2.963 220
V total (mS) (line)	19.911 625	16.522 525	16.666 562.5	16.683 525	16.667 750
V display period (mS) (line)	18.35 576	15.106 480	15.348 517/518	15.348 483	16 720
V front porch (mS) (line)	0.223 7	0.252 8	0.163/0.148 5.5/5	0.191 6	0.111 5
V sync pulse width (mS) (line)	0.223 7	0.22 7	0.148 5	0.191 6	0.111 5
V back porch (mS) (line)	1.115 35	0.944 30	1.037/1.022 35/34.5	0.953 30	0.444 20
H sync polarity	Neg	Neg	Neg	Neg	Neg
V sync polarity	Neg	Neg	Neg	Neg	Neg
Scan type	Non Interlaced	Non Interlaced	Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	36	37	38	39	40
Signal name	HDTV-W	NOT USED	NOT USED	MAC@21"	VESA 1024@85Hz
Definition	1920*1080			1152*870	1280*1024
Dot clock frequency (MHz)	74.25			100	157.5
H frequency (kHz)	33.75			68.681	91.146
V frequency (Hz)	60			75.062	85.024
H total (uS)	29.630			14.560	10.971
(dots)	2200			1456	1728
H display period (uS)	25.859			11.520	8.127
(dots)	1920			1152	1280
H front porch (uS)	0.593			0.320	0.406
(dots)	44			32	64
H sync pulse width (uS)	1.185			1.280	1.016
(dots)	88			128	160
H back porch (uS)	1.993			1.440	1.422
(dots)	148			144	224
V total (mS)	16.666			13.322	11.761
(line)	562.5			915	1072
V display period (mS)	16.000			12.667	11.235
(line)	540			870	1024
V front porch (mS)	0.074/0.059			0.044	0.011
(line)	2.5/2			3	1
V sync pulse width (mS)	0.148			0.044	0.033
(line)	5			3	3
V back porch (mS)	0.444/0.459			0.568	0.483
(line)	15/15.5			39	44
H sync polarity	Neg			Sync on G	Pos.
V sync polarity	Neg			Sync on G	Pos.
Scan type	Interlaced			Non Interlaced	Non Interlaced
Remarks					

PC mode	41	42	43	44	45
Signal name	I/O data 480@100Hz	I/O data 480@120Hz	I/O data 600@100Hz	I/O data 600@120Hz	I/O data 768@100Hz
Definition	640*480	640*480	800*600	800*600	1024*768
Dot clock frequency (MHz)	42.506	51.008	66.022	79.942	111.987
H frequency (kHz)	51.089	61.307	62.998	75.703	80.451
V frequency (Hz)	100.370	120.440	99.838	119.97	100.56
H total (uS) (dots)	19.573 832	16.311 832	15.873 1048	13.209 1056	12.43 1392
H display period (uS) (dots)	15.057 640	12.574 640	12.117 800	10.007 800	9.144 1024
H front porch (uS) (dots)	1.506 64	1.255 64	0.606 40	0.300 24	0.214 24
H sync pulse width (uS) (dots)	1.317 56	1.098 56	0.969 64	1.001 80	0.786 88
H back porch (uS) (dots)	1.694 72	1.412 72	2.181 144	1.901 152	2.286 256
V total (mS) (line)	9.963 509	8.302 509	10.016 631	8.335 631	9.944 800
V display period (mS) (line)	9.395 480	7.829 480	9.524 600	7.926 600	9.546 768
V front porch (mS) (line)	0.020 1	0.016 1	0.016 1	0.013 1	0.012 1
V sync pulse width (mS) (line)	0.059 3	0.049 3	0.048 3	0.04 3	0.037 3
V back porch (mS) (line)	0.489 25	0.408 25	0.429 27	0.357 27	0.348 28
H sync polarity	Neg	Neg	Pos.	Pos.	Neg
V sync polarity	Neg	Neg	Pos.	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	46	47	48	49	50
Signal name	I/O data 768@120Hz	I/O data 1024@100Hz	EWS 4800@71Hz	RCA-STB 1080A	DTV(570P)
Definition	1024*768	1280*1024	1280*1024	1920*1034	768*576
Dot clock frequency (MHz)	132.953	190.908	125	81	29.538
H frequency (kHz)	95.512	108.47	75.12	33.75	31.25
V frequency (Hz)	119.39	100.06	71.204	60	50
H total (uS)	10.47	9.219	13.312	29.630	31.993
(dots)	1392	1760	1664	2400	945
H display period (uS)	7.702	6.7	10.24	23.7	26
(dots)	1024	1280	1280	1920	768
H front porch (uS)	0.181	0.545	0.256	0.59	0.745
(dots)	24	104	32	48	22
H sync pulse width (uS)	0.662	0.75	1.024	3.56	2.35
(dots)	88	143	128	288	69
H back porch (uS)	1.925	1.22	1.792	1.78	2.9
(dots)	256	233	224	144	86
V total (mS)	8.376	9.994	14.044	16.652	20
(line)	800	1084	1055	562	625
V display period (mS)	8.041	9.44	13.631	15.319	18.432
(line)	768	1024	1024	517	576
V front porch (mS)	0.010	0.01	0.04	0.059	0.16
(line)	1	1	3	2	5
V sync pulse width (mS)	0.031	0.03	0.04	0.089	0.16
(line)	3	3	3	3	5
V back porch (mS)	0.293	0.52	0.333	1.185	1.248
(line)	28	56	25	40	39
H sync polarity	Neg	Pos.	Neg	Pos.	Neg
V sync polarity	Neg	Pos.	Neg	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Interlaced	Non Interlaced
Remarks					

PC mode	51	52	53	54	55
Signal name	VESA 864@75Hz	I/O data W_XGA@56Hz	I/O wide XGA	VESA 1200@60Hz	VESA 1200@65Hz
Definition	1152*864	1280*768	1376*768	1600*1200	1600*1200
Dot clock frequency (MHz)	108	76.064	87.34	162	175.5
H frequency (kHz)	67.5	45.064	48.307	75	81.25
V frequency (Hz)	75	56.187	59.934	60	65
H total (uS) (dots)	14.815 1600	22.192 1688	20.701 1808	13.333 2160	12.308 2160
H display period (uS) (dots)	10.667 1152	16.828 1280	15.755 1376	9.877 1600	9.117 1600
H front porch (uS) (dots)	0.593 64	0.631 48	0.366 32	0.395 64	0.365 64
H sync pulse width (uS) (dots)	1.185 128	1.472 112	1.466 128	1.185 192	1.094 192
H back porch (uS) (dots)	2.37 256	3.26 248	3.114 272	1.877 304	1.732 304
V total (mS) (line)	13.333 900	17.78 802	16.685 806	16.667 1250	15.385 1250
V display period (mS) (line)	12.8 864	17.043 768	15.898 768	16 1200	14.769 1200
V front porch (mS) (line)	0.015 1	0.044 2	0.062 3	0.013 1	0.012 1
V sync pulse width (mS) (line)	0.044 3	0.067 3	0.124 6	0.04 3	0.037 3
V back porch (mS) (line)	0.474 32	0.644 29	0.6 29	0.613 46	0.566 46
H sync polarity	Pos.	Pos.	Neg	Pos.	Pos.
V sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	56	57	58	59	60
Signal name	VESA 1200@70Hz	VESA 1200@75Hz	VESA 1200@85Hz	HP 1024@72Hz	SUN 900@66Hz
Definition	1600*1200	1600*1200	1600*1200	1280*1024	1152*900
Dot clock frequency (MHz)	189	202.5	229.5	135	92.941
H frequency (kHz)	87.5	93.75	106.25	78.130	61.796
V frequency (Hz)	70	75	85	72.009	65.95
H total (uS) (dots)	11.429 2160	10.667 2160	9.412 2160	12.8 1728	16.182 1504
H display period (uS) (dots)	8.466 1600	7.901 1600	6.972 1600	9.481 1280	12.395 1152
H front porch (uS) (dots)	0.339 64	0.316 64	0.279 64	0.474 64	0.312 29
H sync pulse width (uS) (dots)	1.016 192	0.948 192	0.837 192	1.442 192	1.377 128
H back porch (uS) (dots)	1.608 304	1.501 304	1.325 304	1.442 192	2.098 195
V total (mS) (line)	14.286 1250	13.333 1250	11.765 1250	13.887 1085	15.163 937
V display period (mS) (line)	13.714 1200	12.8 1200	11.294 1200	13.107 1024	14.564 900
V front porch (mS) (line)	0.011 1	0.011 1	0.009 1	0.038 3	0.032 2
V sync pulse width (mS) (line)	0.034 3	0.032 3	0.028 3	0.038 3	0.065 4
V back porch (mS) (line)	0.526 46	0.491 46	0.433 46	0.704 55	0.502 31
H sync polarity	Pos.	Pos.	Pos.	SOG.	Csync
V sync polarity	Pos.	Pos.	Pos.	SOG.	Csync
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	61	62	63	64	65
Signal name	SUN 900@76Hz	SGI 768@60Hz	VESA 960@60Hz	VESA 960@60Hz	VESA 1050@60Hz
Definition	1152*900	1024*768	1280*960	1280*960	1400*1050
Dot clock frequency (MHz)	105.561	70	108	148.5	108
H frequency (kHz)	71.710	49.716	60	85.938	63.981
V frequency (Hz)	76.047	60.043	60	85.002	60.020
H total (uS) (dots)	13.945 1472	20.114 1408	16.667 1800	11.636 1728	15.630 1688
H display period (uS) (dots)	10.913 1152	14.629 1024	11.852 1280	8.62 1280	12.963 1400
H front porch (uS) (dots)	0.152 16	2.057 144	0.889 96	0.431 64	0.444 48
H sync pulse width (uS) (dots)	0.909 96	1.371 96	1.037 112	1.077 160	1.037 112
H back porch (uS) (dots)	1.97 208	2.507 144	2.889 312	1.508 224	1.185 128
V total (mS) (line)	13.15 943	16.655 828	16.667 1000	11.764 1011	16.661 1066
V display period (mS) (line)	12.55 900	15.448 768	16 960	11.171 960	16.411 1050
V front porch (mS) (line)	0.028 2	0.443 22	0.017 1	0.012 1	0.016 1
V sync pulse width (mS) (line)	0.112 8	0.06 3	0.05 3	0.035 3	0.047 3
V back porch (mS) (line)	0.460 33	0.704 35	0.6 36	0.547 47	0.188 12
H sync polarity	Csync	SOG.	Pos.	Pos.	Neg
V sync polarity	Csync	SOG.	Pos.	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	66~74
Signal name	NOT USED
Definition	
Dot clock frequency (MHz)	
H frequency (kHz)	
V frequency (Hz)	
H total (uS) (dots)	
H display period (uS) (dots)	
H front porch (uS) (dots)	
H sync pulse width (uS) (dots)	
H back porch (uS) (dots)	
V total (mS) (line)	
V display period (mS) (line)	
V front porch (mS) (line)	
V sync pulse width (mS) (line)	
V back porch (mS) (line)	
H sync polarity V sync polarity	
Scan type	
Remarks	

PC mode	75	80	81	82	83
Signal name	1080I 50Hz	W_XGA	NOT USED	400H	350H
Definition	1920*1080	1280*768		720*400	720*350
Dot clock frequency (MHz)	74.25	81.0		28.3	28.3
H frequency (kHz)	28.125	47.99		31.5	31.5
V frequency (Hz)	50	59.34		70.1	70.1
H total (uS) (dots)	35.556 2640	20.84 1688		31.78 900	31.78 900
H display period (uS) (dots)	25.859 1920	15.80 1280		25.42 720	25.42 720
H front porch (uS) (dots)	6.519 484	0.593 48		0.636 18	0.636 18
H sync pulse width (uS) (dots)	1.185 88	1.38 112		3.81 108	3.81 108
H back porch (uS) (dots)	1.993 148	3.06 248		1.91 54	1.91 54
V total (mS) (line)	10 562.5	16.713 802		14.269 449	14.269 449
V display period (mS) (line)	9.6 540	16.005 768		12.712 400	11.123 350
V front porch (mS) (line)	0.074/0.059 2.5/2	0.063 3		0.424 12	1.307 37
V sync pulse width (mS) (line)	0.148 5	0.125 6		0.064 2	0.064 2
V back porch (mS) (line)	0.444/0.459 15/15.5	0.521 25		1.112 35	1.907 60
H sync polarity	Neg.	Pos.		Neg.	Pos.
V sync polarity	Neg.	Neg.		Pos.	Neg.
Scan type	Interlaced	Non Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	84	85	86	87	88
Signal name	720P 24Hz	1080P 24Hz	720P 50Hz	1080I 48Hz	NOT USED
Definition	1280*720	1920*1080	1280*720	1920*1080	
Dot clock frequency (MHz)	74.176	74.176	74.25	74.1758	
H frequency (kHz)	17.982	26.973	37.5	26.973	
V frequency (Hz)	23.976	23.976	50	37.074	
H total (uS) (dots)	55.611 4125	37.704 2750	26.667 1980	37.074 2750	
H display period (uS) (dots)	17.256 1280	25.884 1920	17.239 1280	25.884 1920	
H front porch (uS) (dots)	34.310 2545	8.008 594	5.387 400	8.008 594	
H sync pulse width (uS) (dots)	1.078 80	1.078 88	1.078 80	1.078 88	
H back porch (uS) (dots)	2.256 220	1.995 148	2.963 220	1.995 148	
V total (mS) (line)	41.706 750	41.708 1125	20 750	20.855 1125	
V display period (mS) (line)	40.040 720	40.040 1080	19.2 720	20.020 1080	
V front porch (mS) (line)	0.278 5	0.148 4	0.133 5	0.093 5	
V sync pulse width (mS) (line)	0.278 5	0.185 5	0.133 5	0.185 10	
V back porch (mS) (line)	1.112 20	1.335 36	0.533 20	0.556 30	
H sync polarity	Neg	Neg	Neg	Neg	
V sync polarity	Neg	Neg	Neg	Neg	
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Interlaced	
Remarks					

PC mode	89	90	91	92	93
Signal name	NOT USED	480i(60Hz)	DTV(480P)	DTV(480P)	DTV(720P)
Definition		720*480Hz	640*480Hz	720*480Hz	1280*720Hz
Dot clock frequency (MHz)		27.000	25.175	27.000	74.250
H frequency (kHz)		15.734	31.469	31.469	45.000
V frequency (Hz)		59.94	59.940	59.94	60.000
H total (uS)		16.555	31.777	31.777	22.222
(dots)		1716	800	858	1650
H display period (uS)		53.333	25.422	26.666	17.239
(dots)		1440	640	720	1280
H front porch (uS)		1.407	0.635	0.592	1.481
(dots)		38	16	16	110
H sync pulse width (uS)		4.593	3.813	2.296	0.538
(dots)		124	96	62	40
H back porch (uS)		4.222	1.906	2.222	2.963
(dots)		114	48	60	220
V total (mS)		16.635	16.683	19.444	10.101
(line)		262	525	525	750
V display period (mS)		15.253	15.253	15.253	16.000
(line)		240	480	480	720
V front porch (mS)		0.254	0.317	0.333	0.067
(line)		4	10	9	5
V sync pulse width (mS)		0.191	0.064	0.191	0.111
(line)		3	2	6	5
V back porch (mS)		0.953	1.049	0.953	0.444
(line)		15	33	30	20
H sync polarity		Neg	Neg	Neg	Pos
V sync polarity		Neg	Neg	Neg	Pos
Scan type		Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks		HDCP*	HDCP	HDCP	HDCP

*HDCP : High-bandwidth Digital Content Protection

PC mode	94	95	96	97	98
Signal name	HDTV-W	NOT USED			
Definition	1920*1080Hz				
Dot clock frequency (MHz)	74.250				
H frequency (kHz)	33.750				
V frequency (Hz)	60.000				
H total (uS)	29.629				
(dots)	2200				
H display period (uS)	25.859				
(dots)	1920				
H front porch (uS)	1.185				
(dots)	88				
H sync pulse width (uS)	0.592				
(dots)	44				
H back porch (uS)	1.993				
(dots)	148				
V total (mS)	7.582				
(line)	563				
V display period (mS)	16.000				
(line)	540				
V front porch (mS)	0.040				
(line)	3				
V sync pulse width (mS)	0.148				
(line)	5				
V back porch (mS)	0.444				
(line)	15				
H sync polarity	Pos				
V sync polarity	Pos				
Scan type	Interlaced				
Remarks	HDCP				

*HDCP : High-bandwidth Digital Content Protection

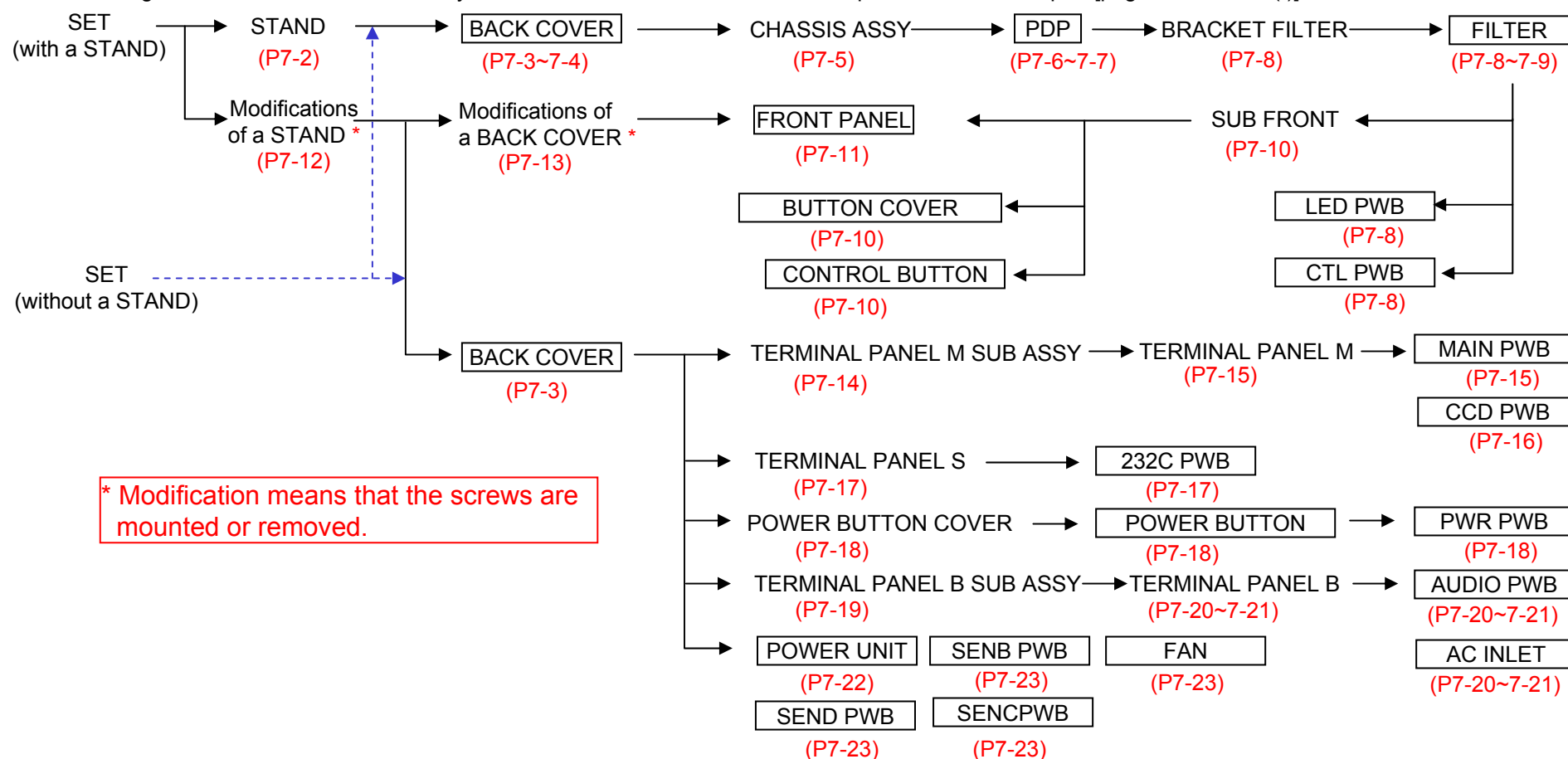
METHOD OF DISASSEMBLY

- (Caution)**
1. Before disassembly, turn power off the main unit and pull out the power plug from the wall outlet.
 2. Use a screwdriver with a fitting size. Otherwise, the screw threads may be damaged.
 3. Reassembly can be carried out in the reverse order for disassembly. Refer to the disassembly procedures and forward reassembly in the reverse order.
 4. The order for taking out the parts (or components) is indicated by the foregoing numeral that is attached to the name of each part.
 5. The wire connector symbol is indicated by two digits of Marking □□. Read CN-□□ when examining the table of parts.
 6. Class A or Class B in the text is applicable to the models specified below.
- CLASS A: PX-50XM4J, 50XM4A, CLASS B: PX-50XR4A, 50XR4W, 50XR4G

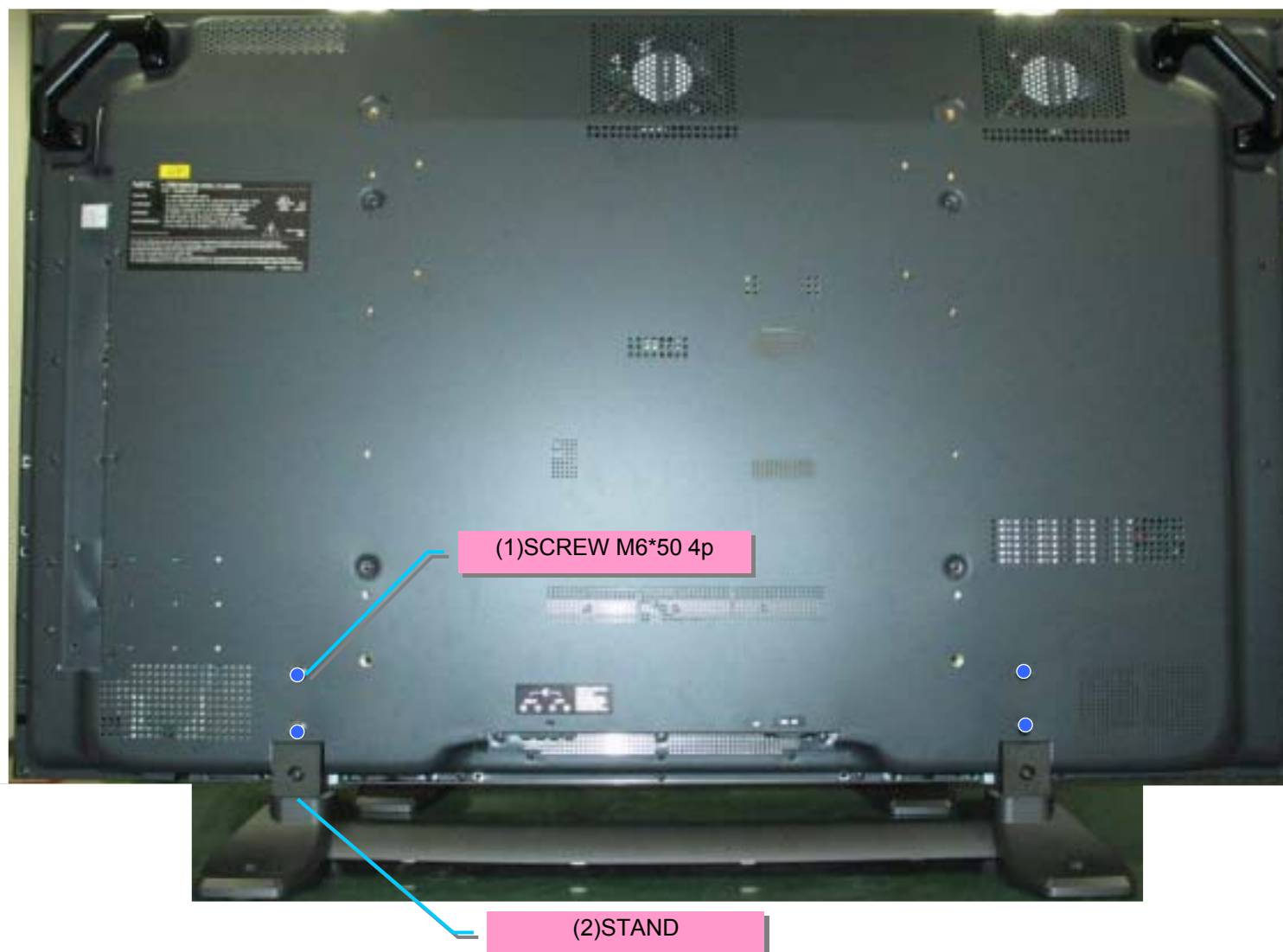
1. Outlined method of disassembly

The outlined procedures for the disassembly of the major parts are shown below (disassembled in the direction of →).

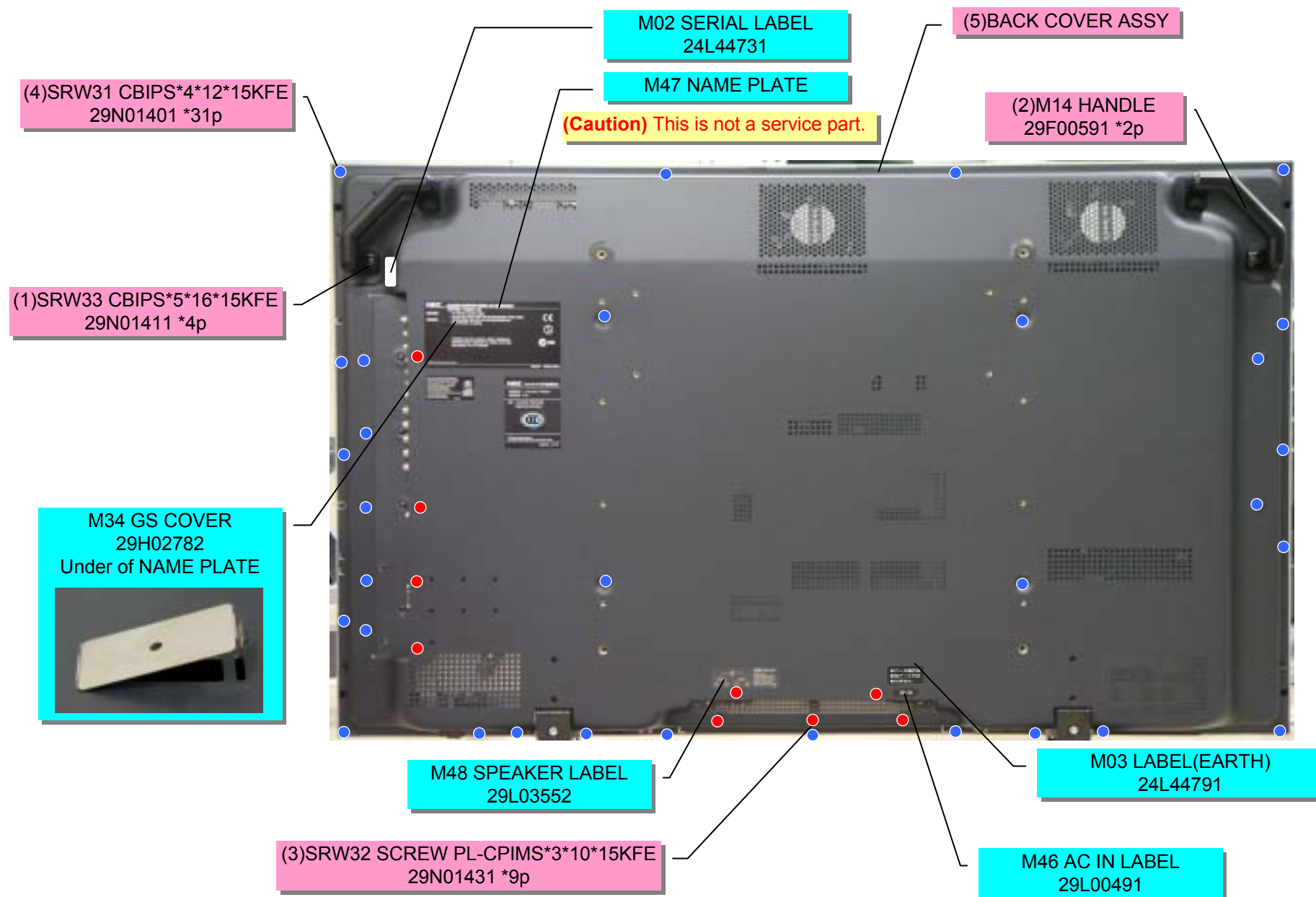
In regard to the details of disassembly, cautions, etc., refer to the method of replacement for each part [page indicated in ()].

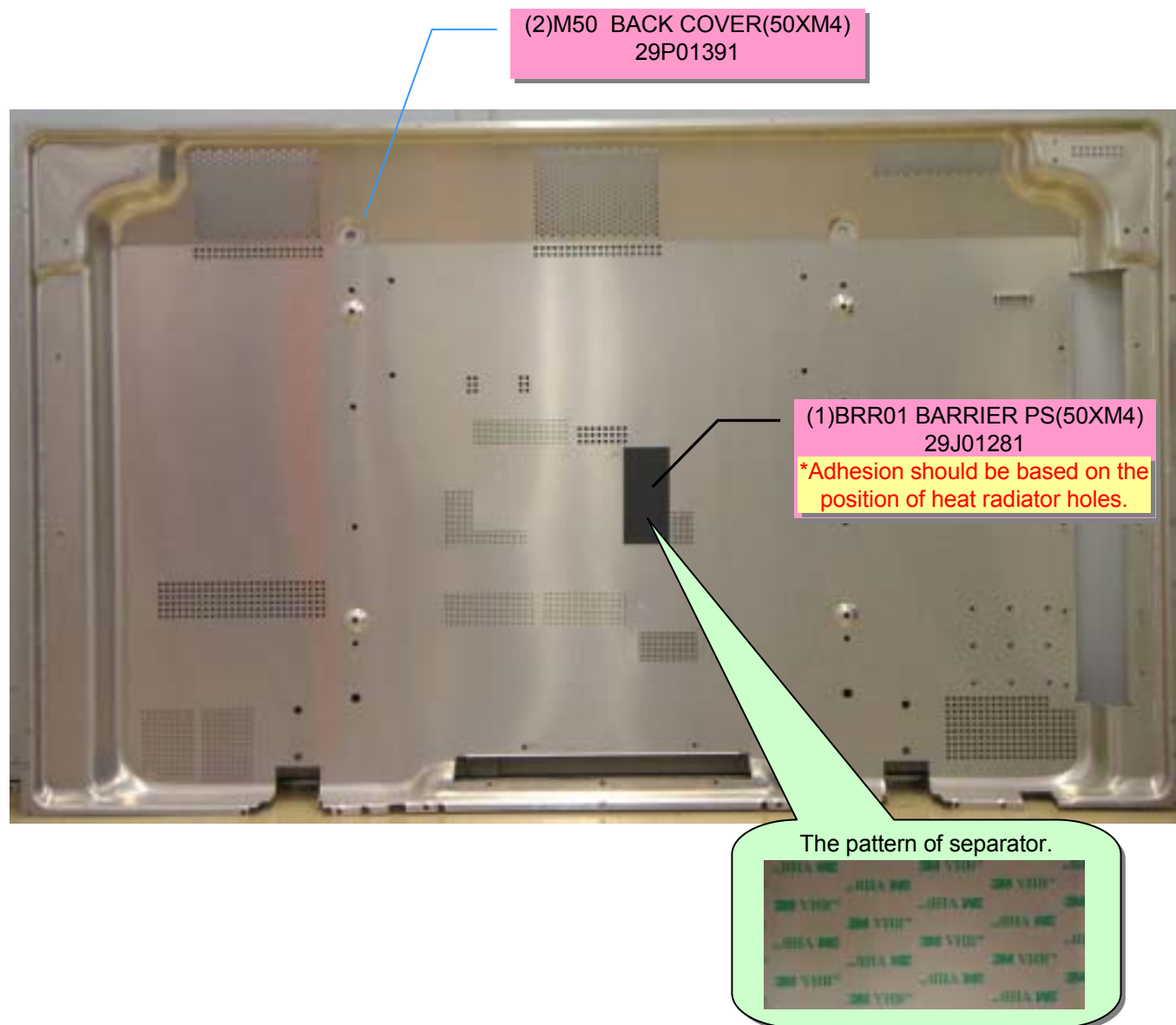


2. STAND

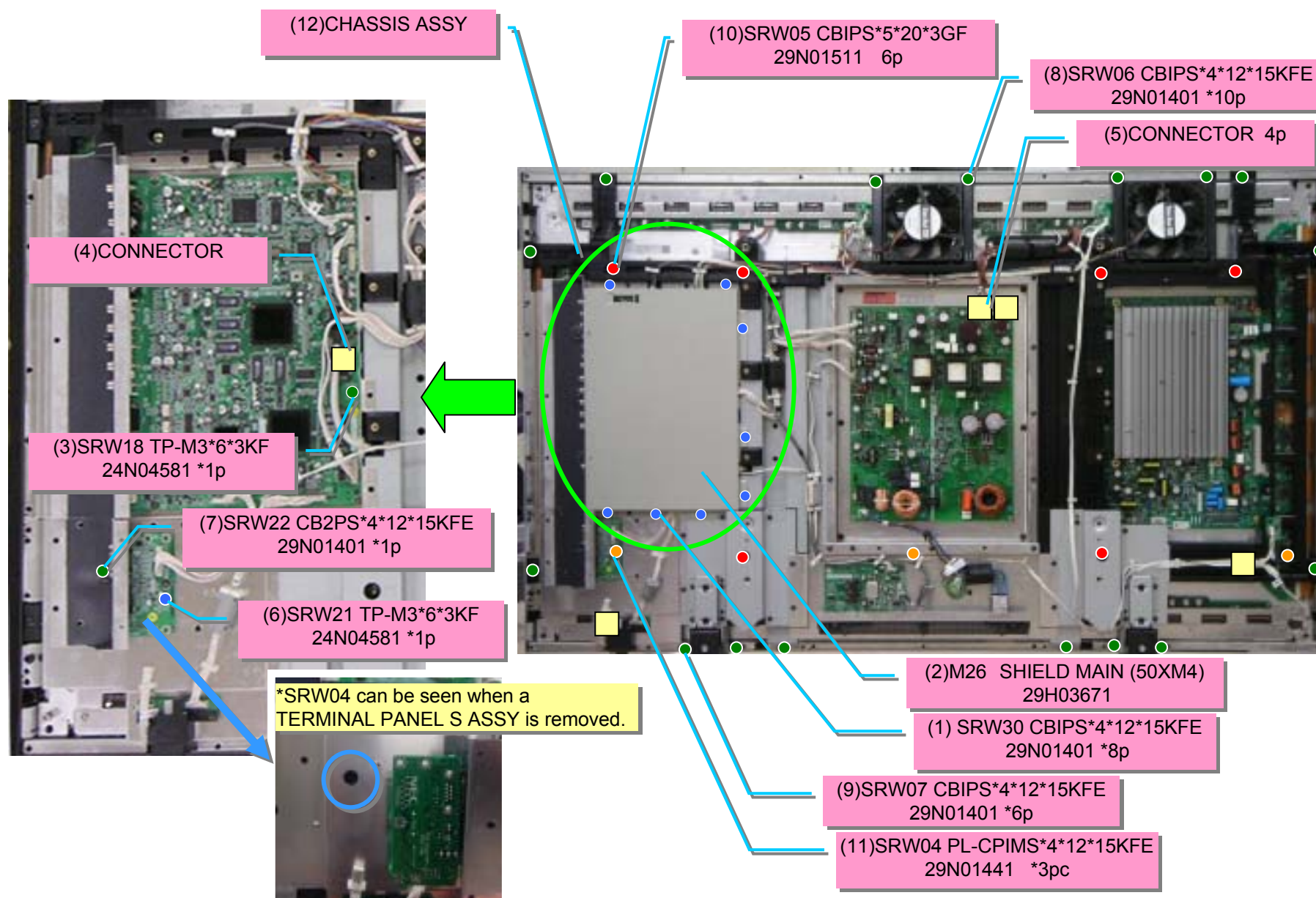


3. BACK COVER

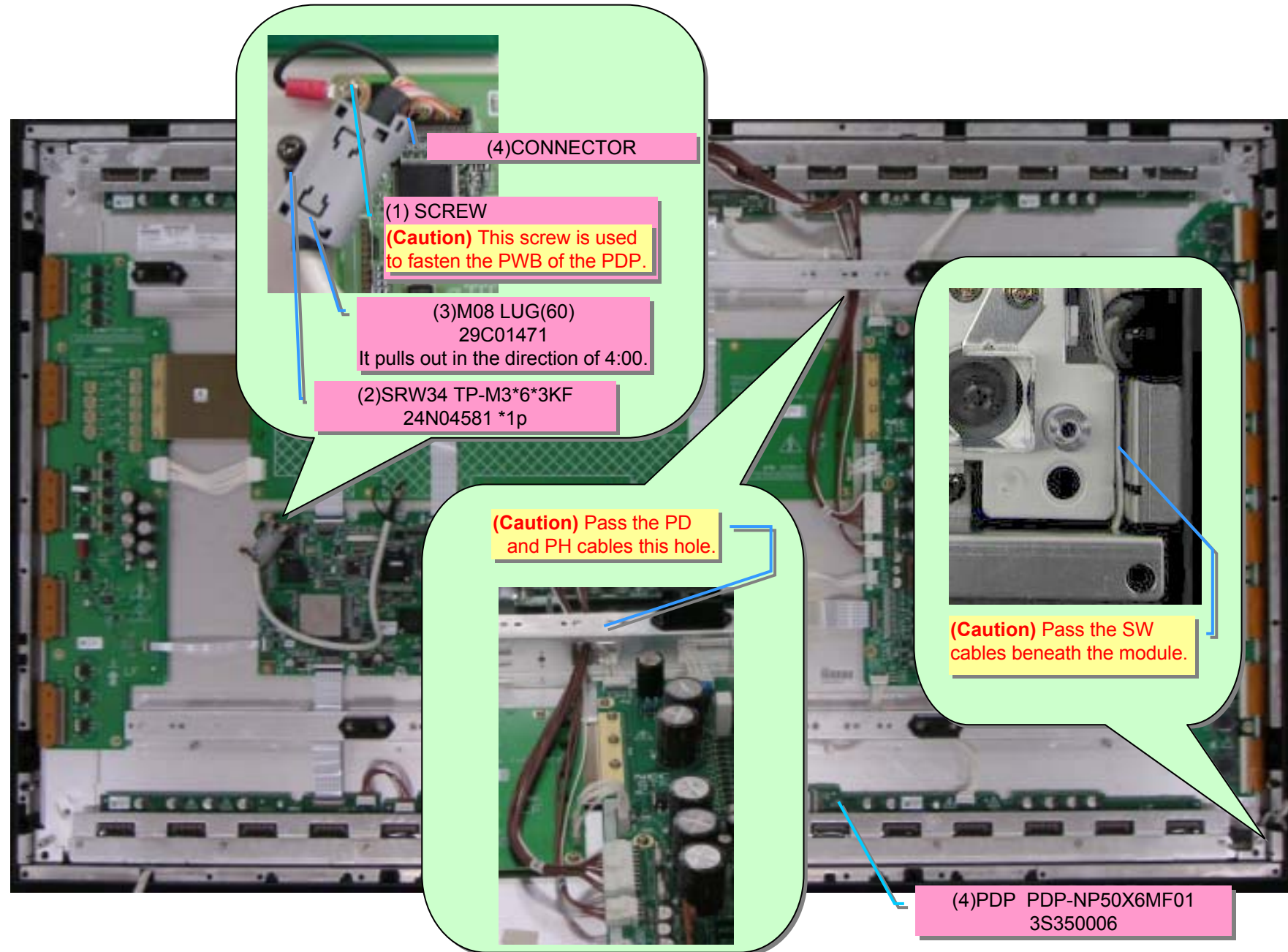


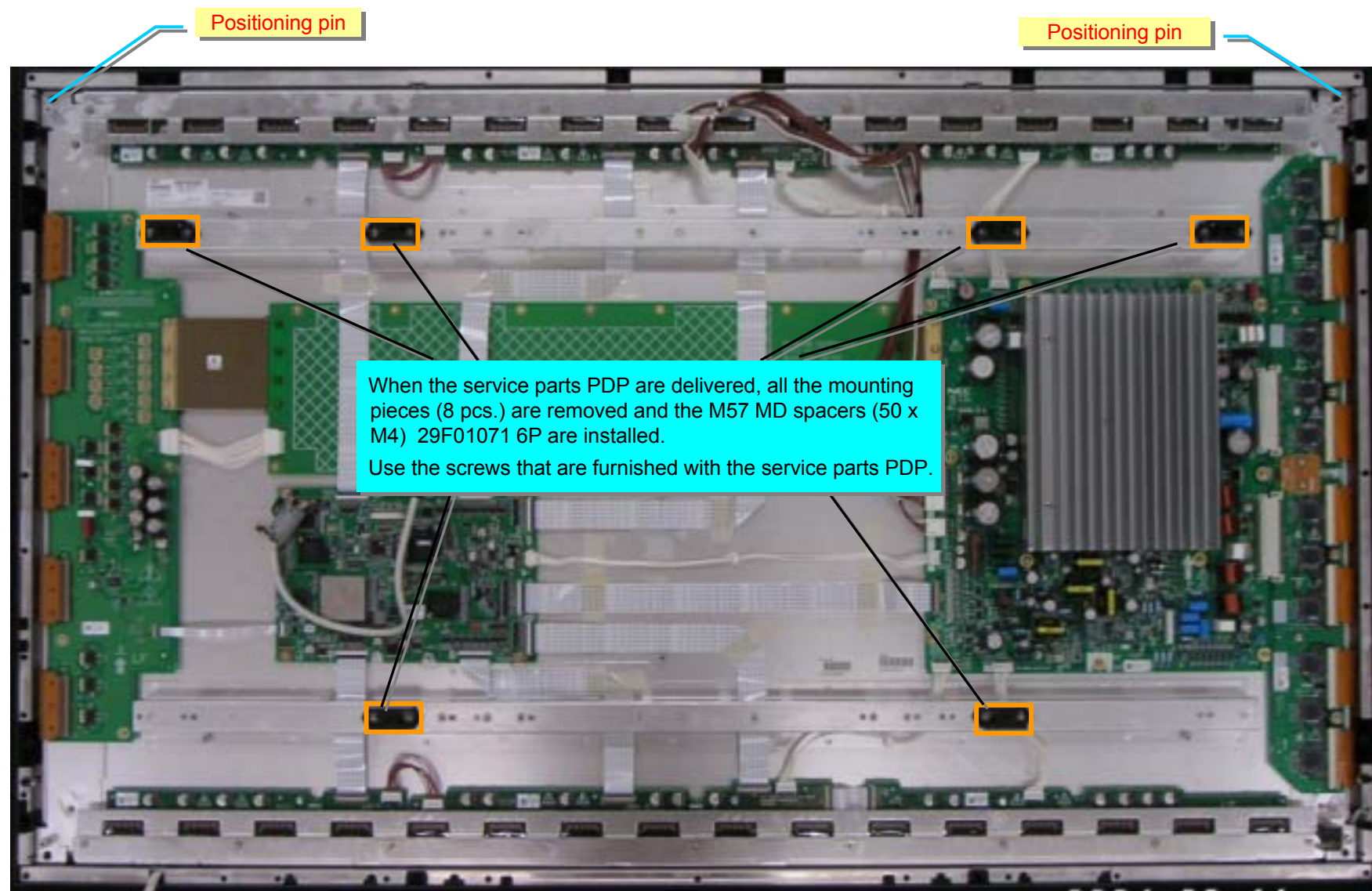


4. CHASSIS ASSY

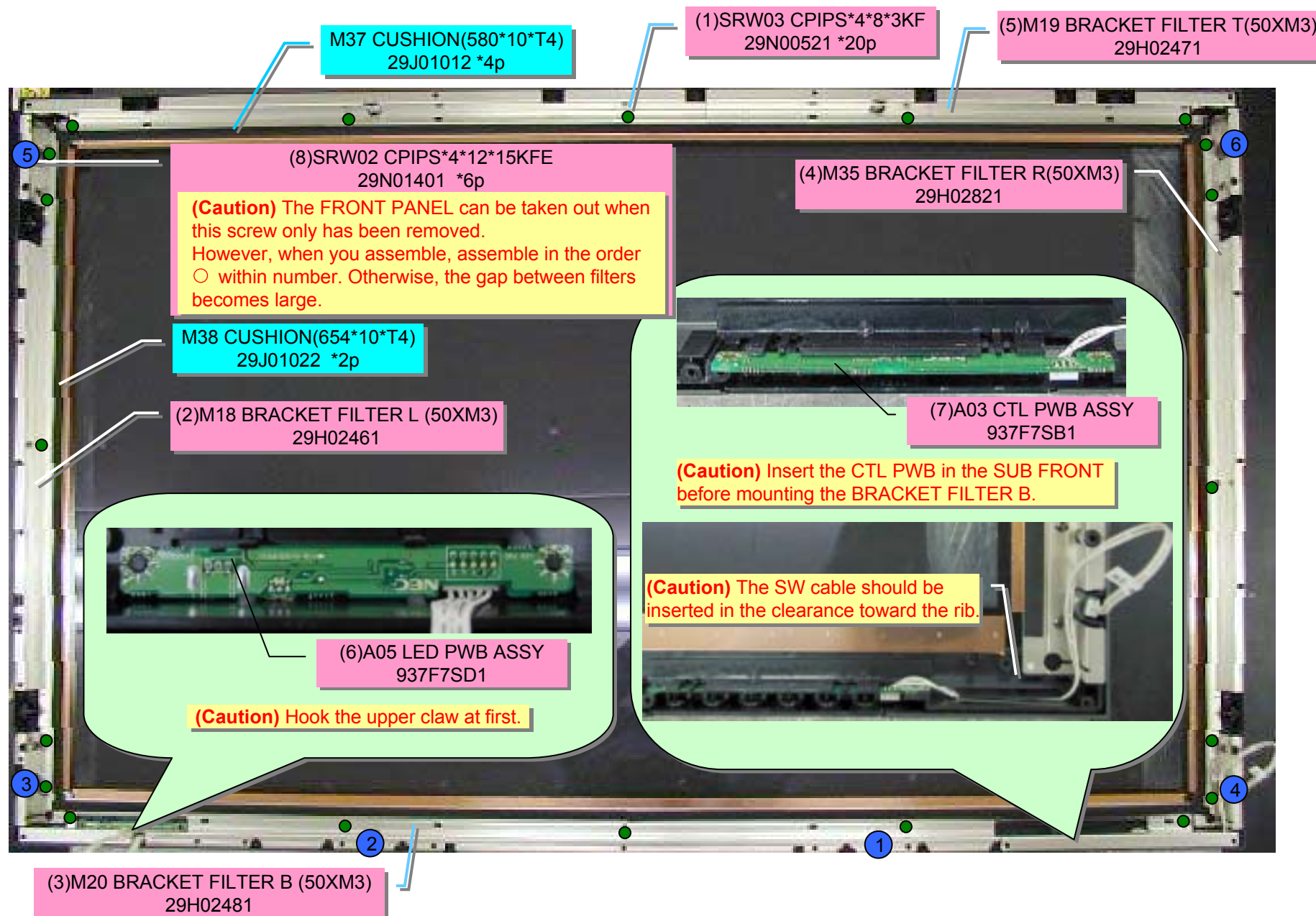


5. PDP





6. BRACKET FILTER/FILTER

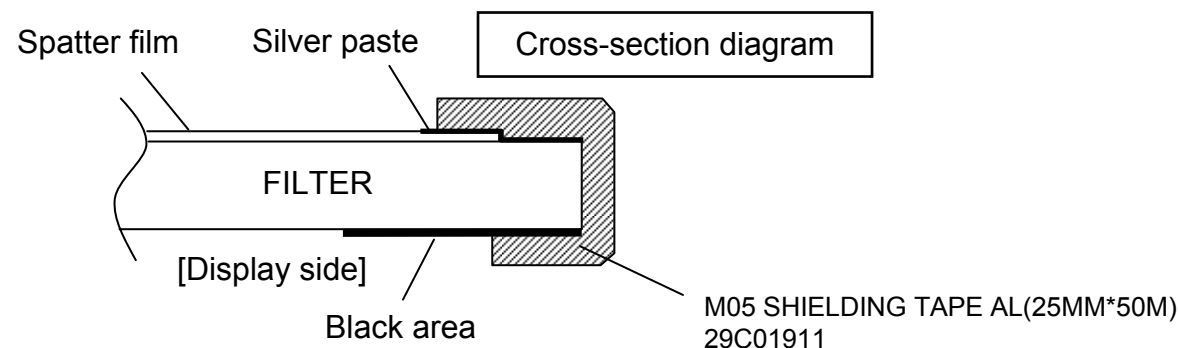
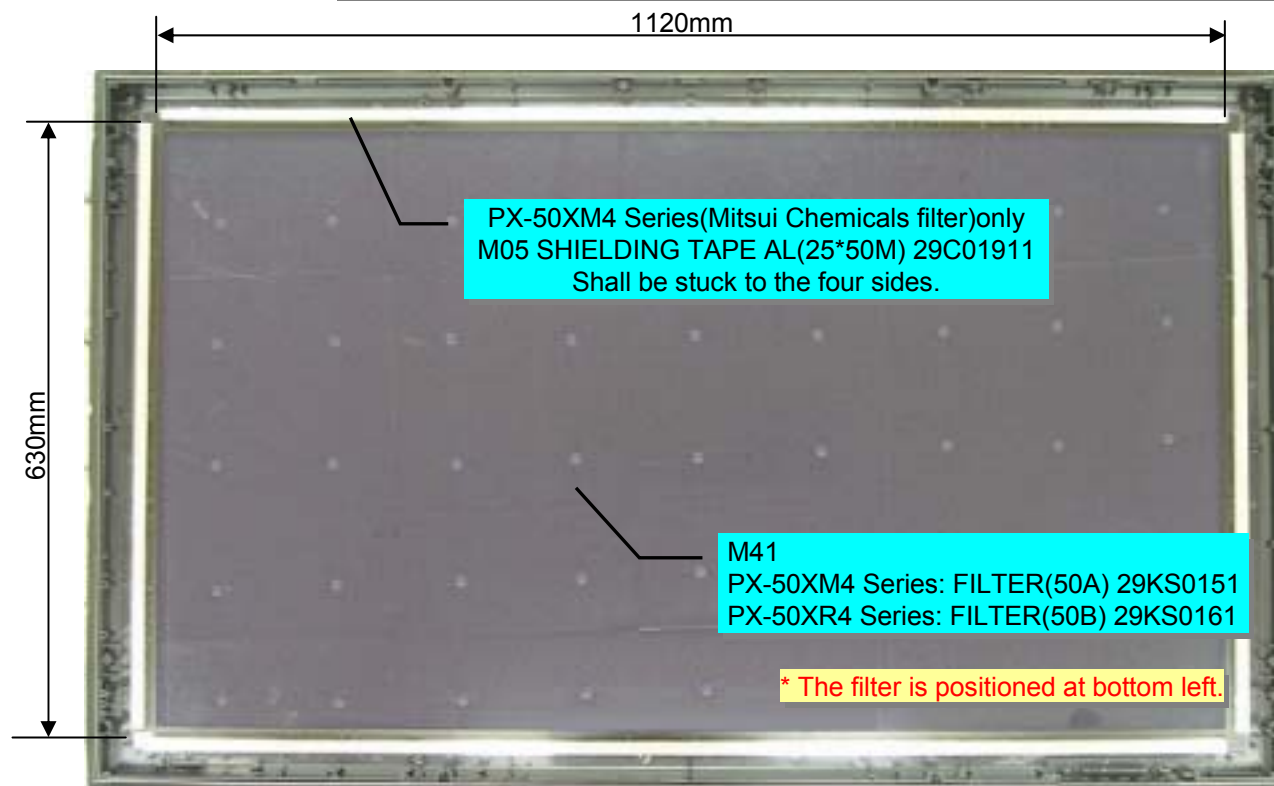


7. FILTER

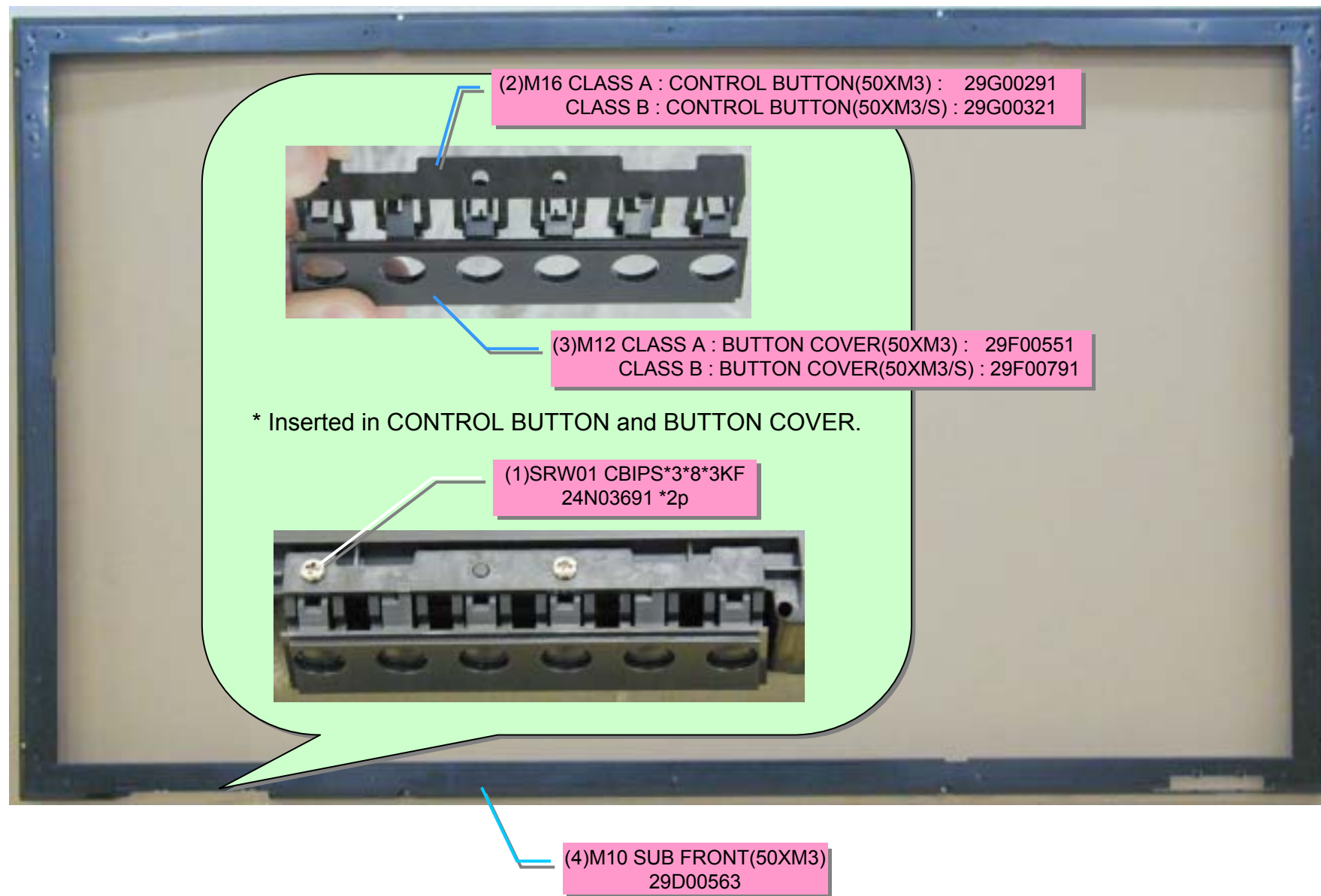
(Caution) No SHIELDING TAPE has been stuck to the service part FILTER. Therefore, in the case of filter replacement, please order the SHIELDING TAPE and stick it as illustrated below. (CLASS A)

SHIELDING TAPE (CLASS A)

(Caution) Once the shielding tape is removed, it must not be used again because its adhesive strength has been reduced.



8. SUB FRONT



9. FRONT PANEL



(1)M42 INDICATOR(50XM3)
29K00421

(Caution) For removal, it comes off when it is pressed strongly from the rear side of the front panel.
For installation, remove the separator before adhesion.

(2)M09 CLASS A : FRONT PANEL(50XM3) : 29D00554
CLASS B : FRONT PANEL ASSY(50XM3/S) : 29DS0573

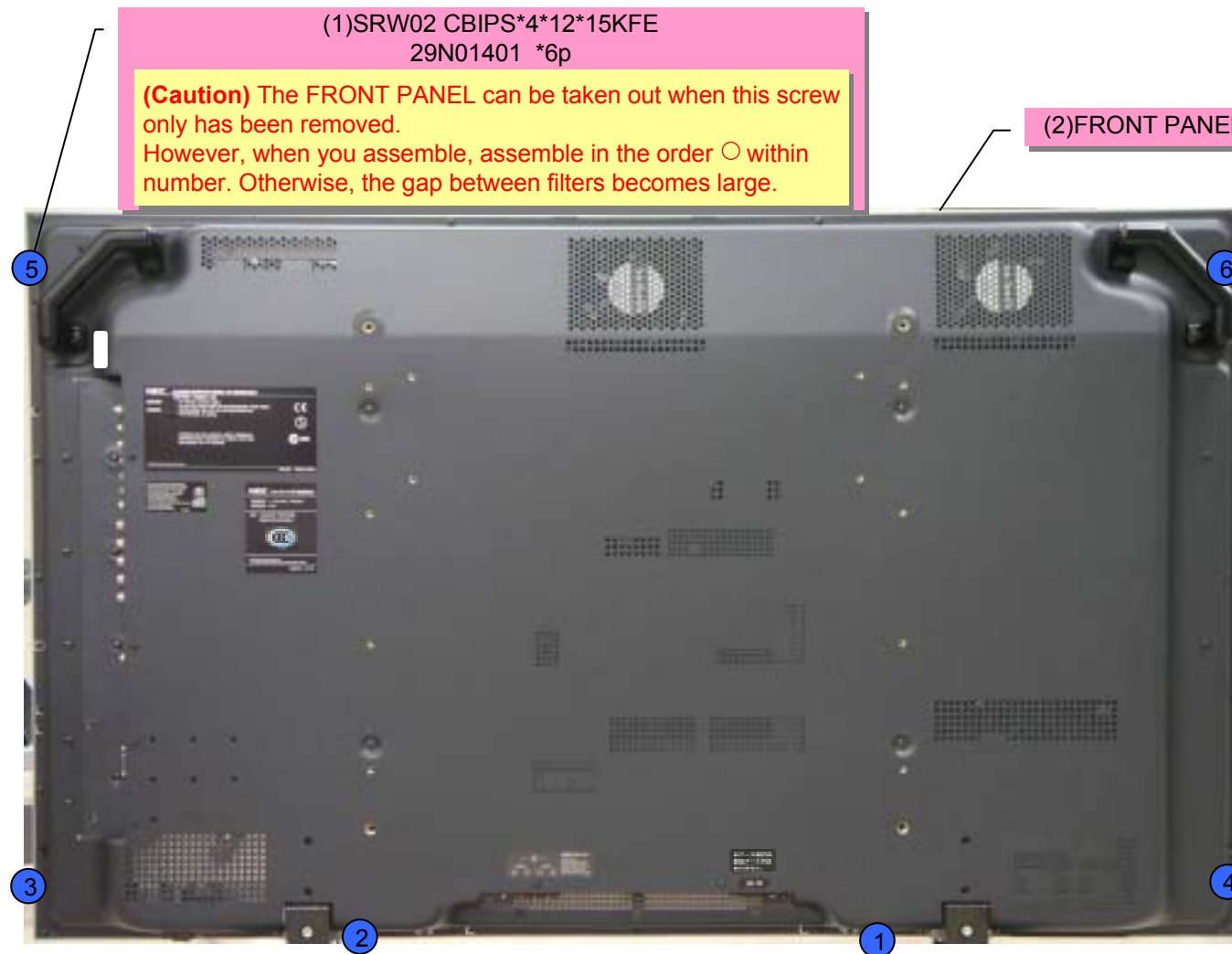
(Caution) The CLASS B is stuck to the NEC logo batch.
If it is put on the stand with its front side facing downwards, make sure not to hurt this side.

10. STAND (modification)

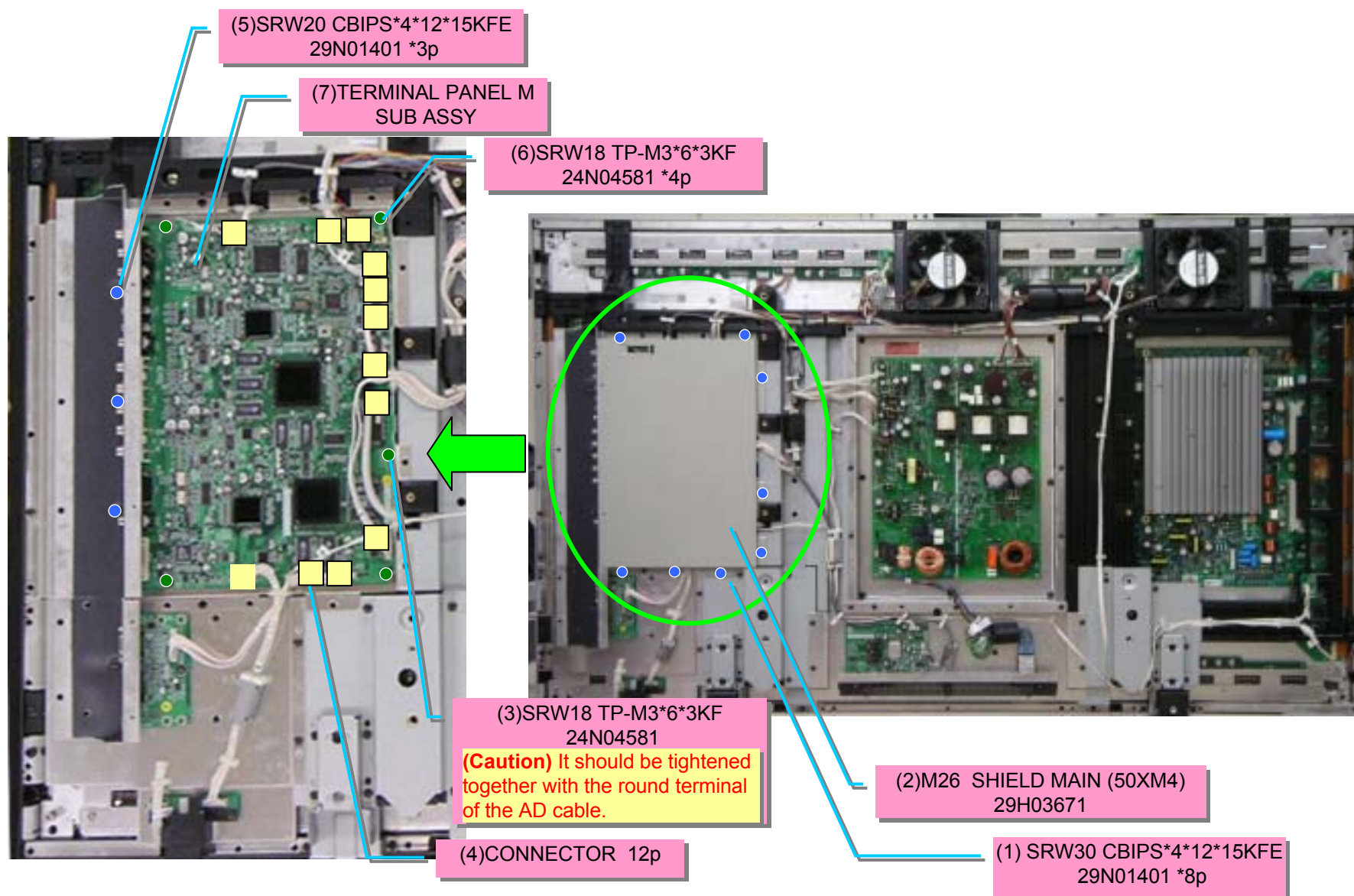


11. BACK COVER (modification)

(Caution) The illustration below shows a case when the STAND has been removed.

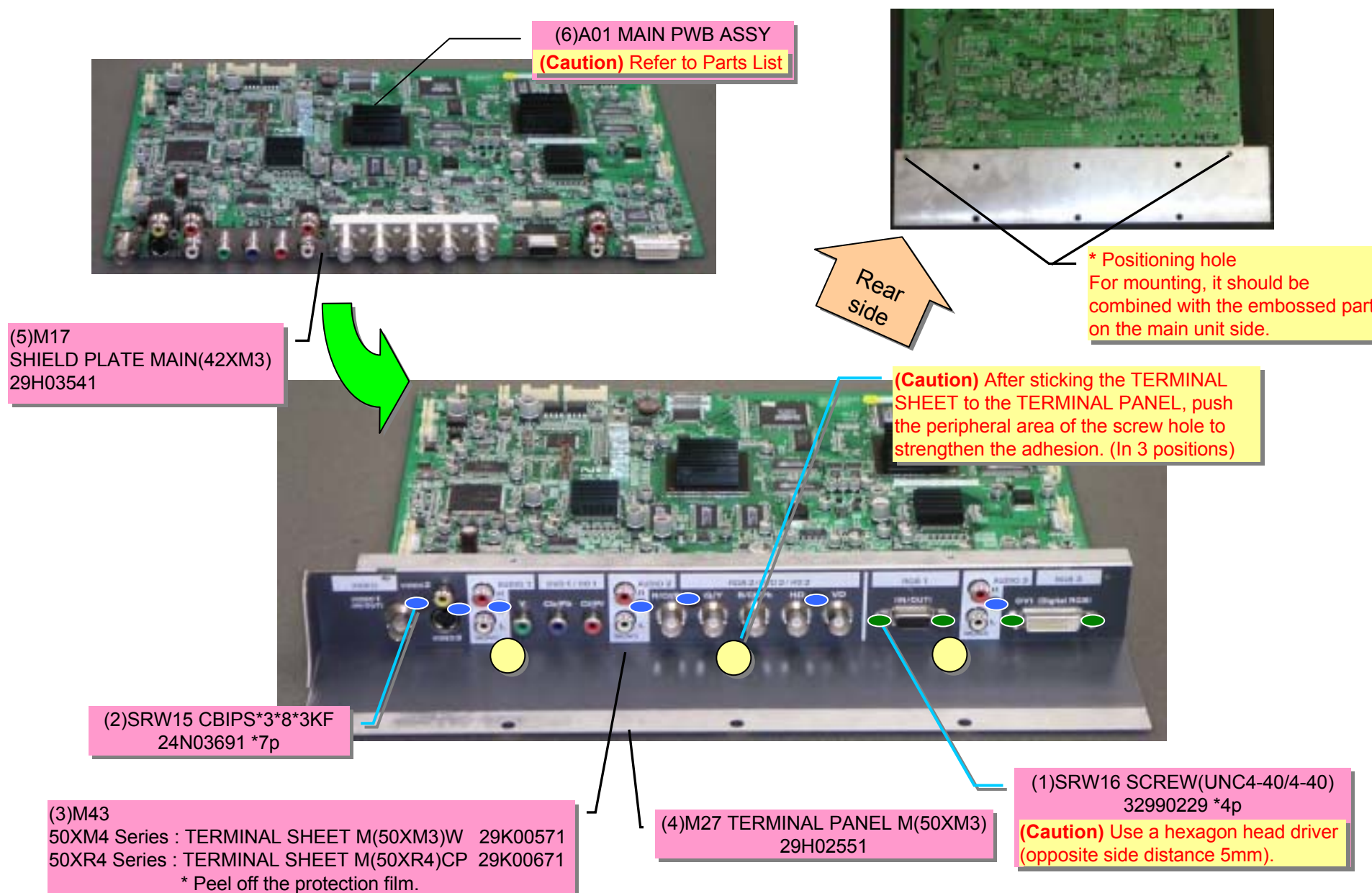


12. TERMINAL PANEL M SUB ASSY

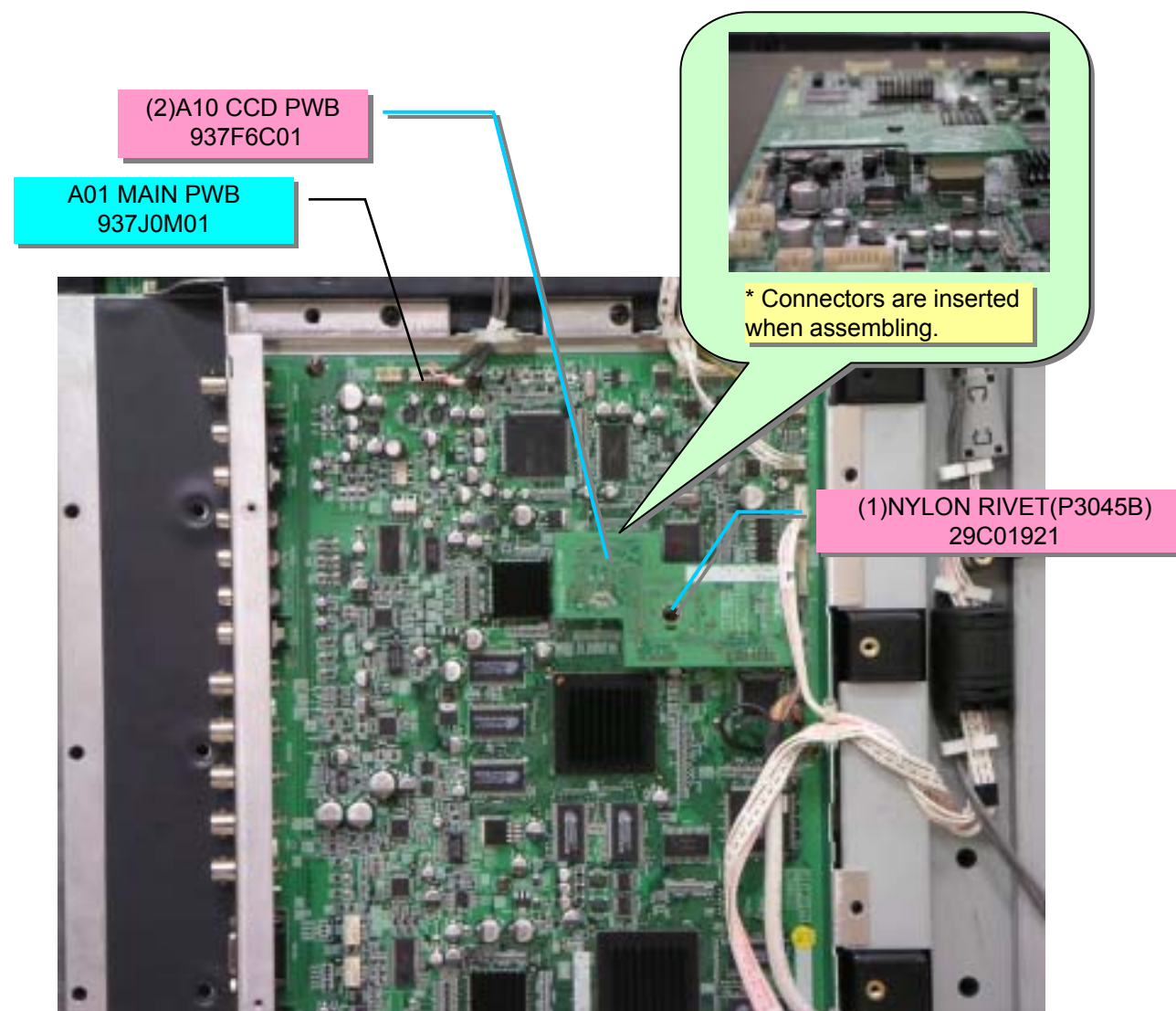


13. TERMINAL PANEL M /MAIN PWB

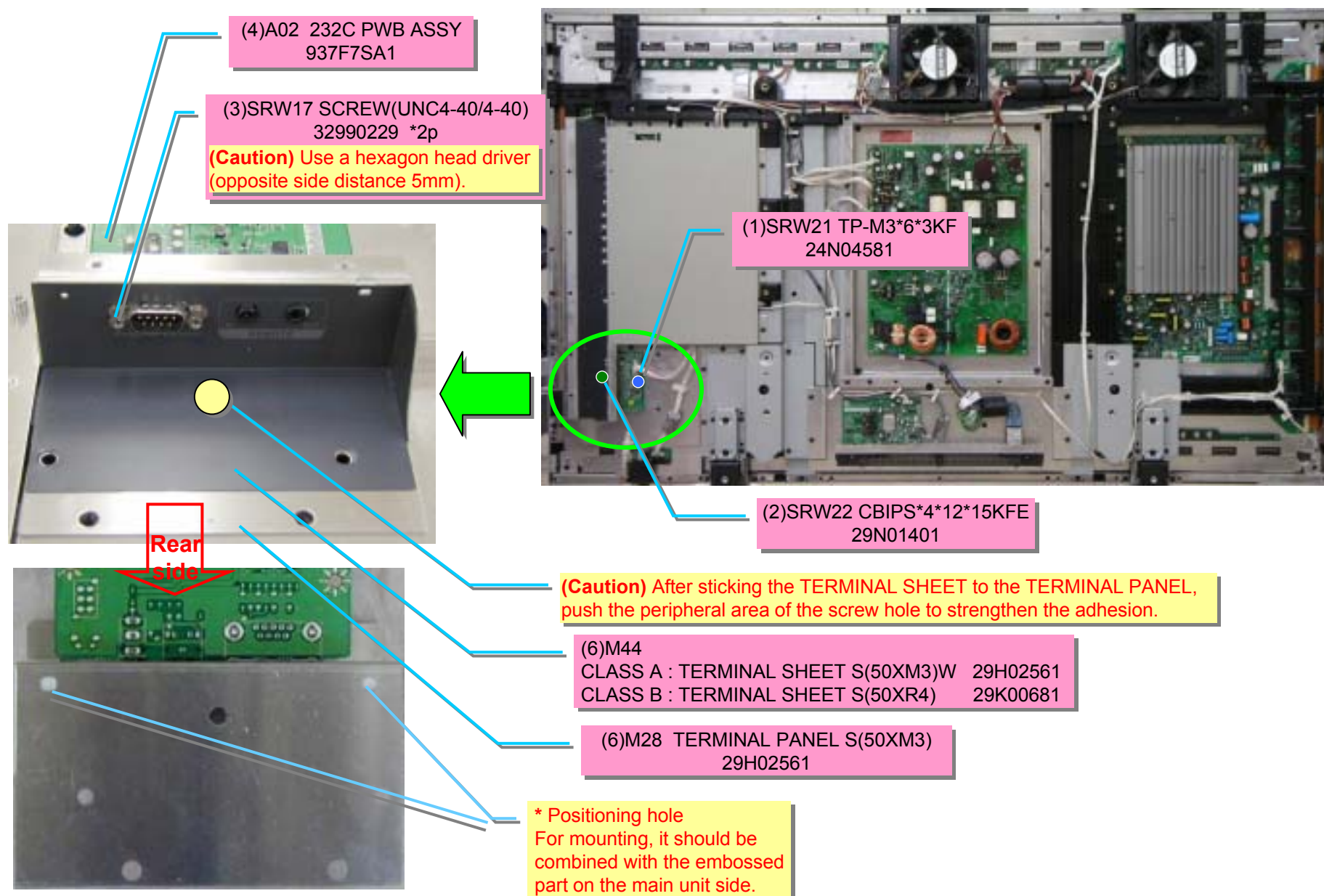
(Caution) Please note that no DS connector is furnished even though the MAIN PWB is ordered.



14. CCD PWB (PX-50XM4A, 50XR4A)



15. TERMINAL PANEL S/ 232C PWB



16. POWER BUTTON COVER/POWER BUTTON/PWR PWB

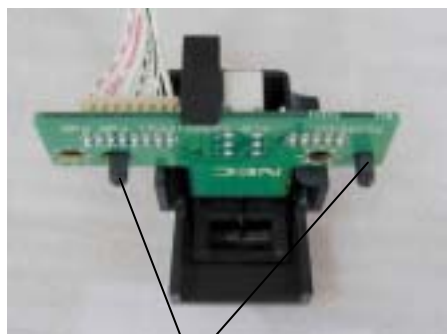
(1)SRW23 TP-M3*6*3KF
24N04581 *2p



(3)M15 POWER BUTTON(50XM3)
29G00281

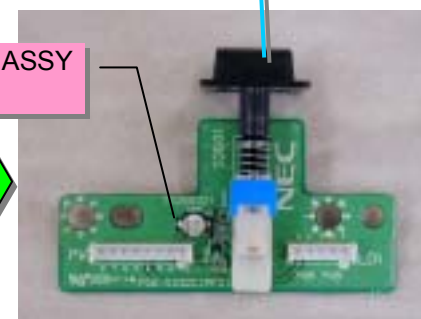
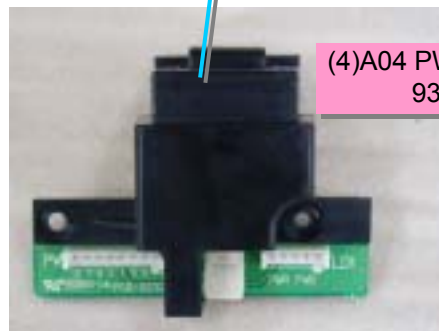
(2)M13 POWER BUTTON COVER(50XM3)
29F00561

(4)A04 PWR PWB ASSY
937F7SC1

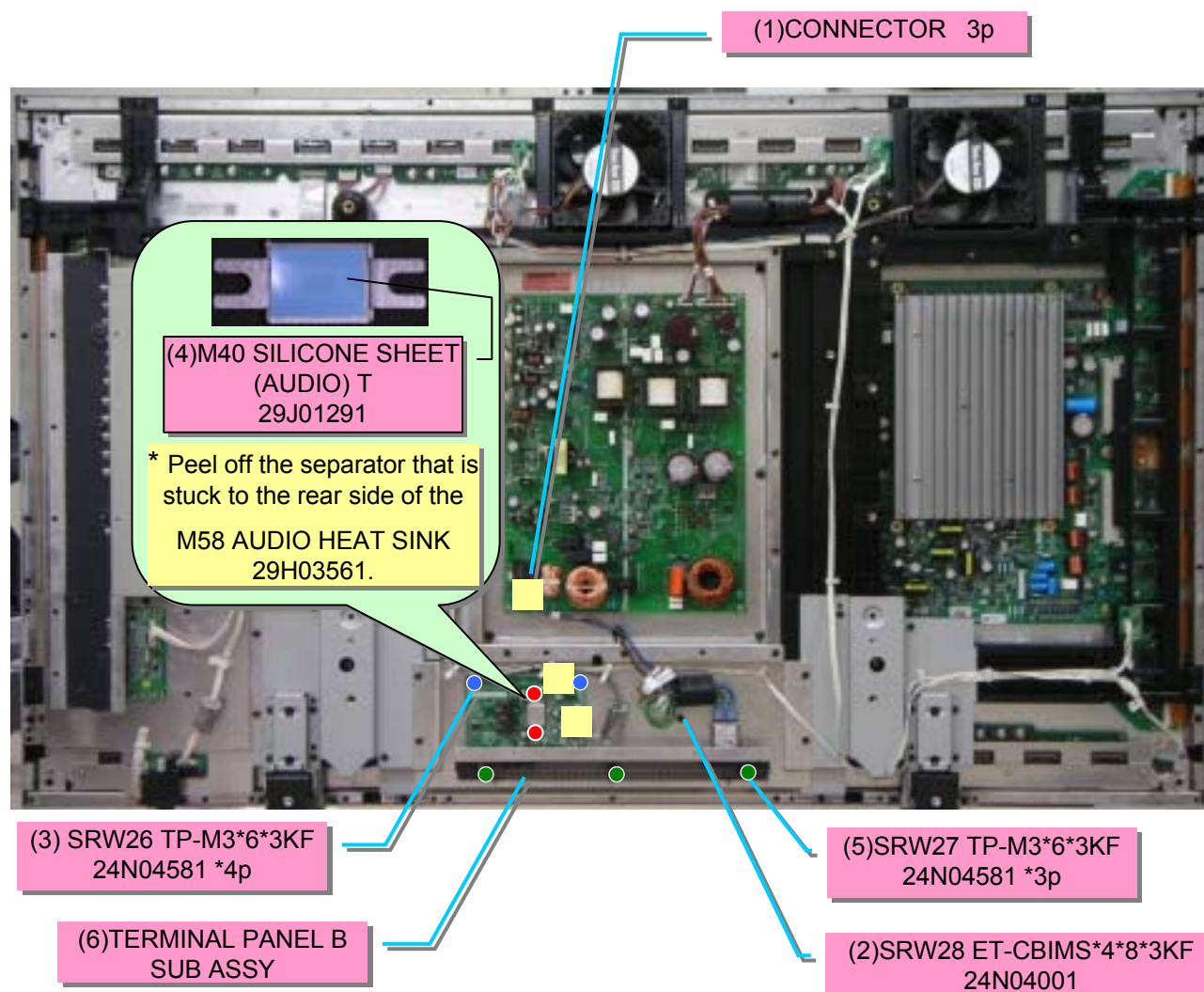


Rear
side

(Caution) Positioning pin Use
it in the case of reassembly.

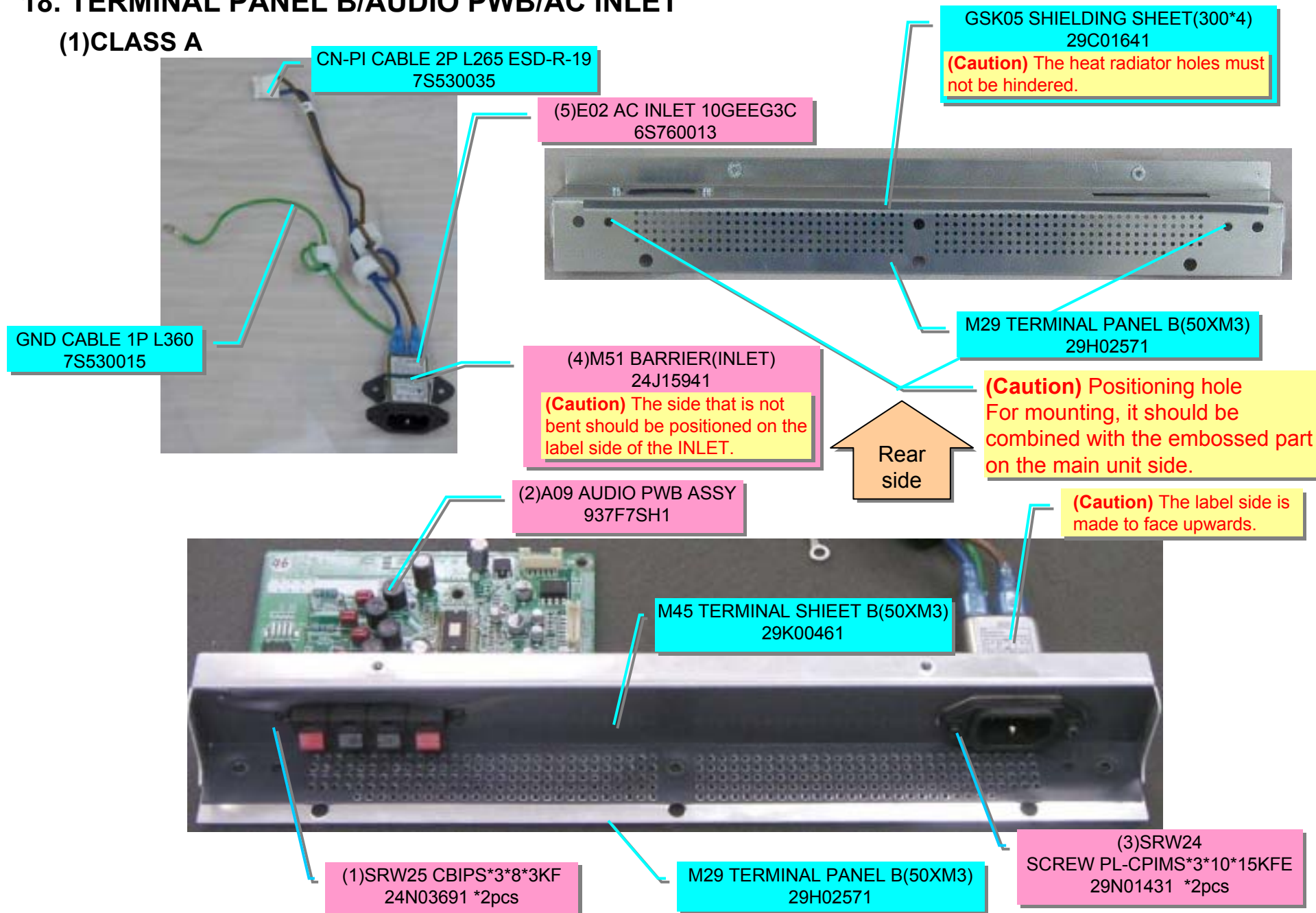


17. TERMINAL PANEL B SUB ASSY

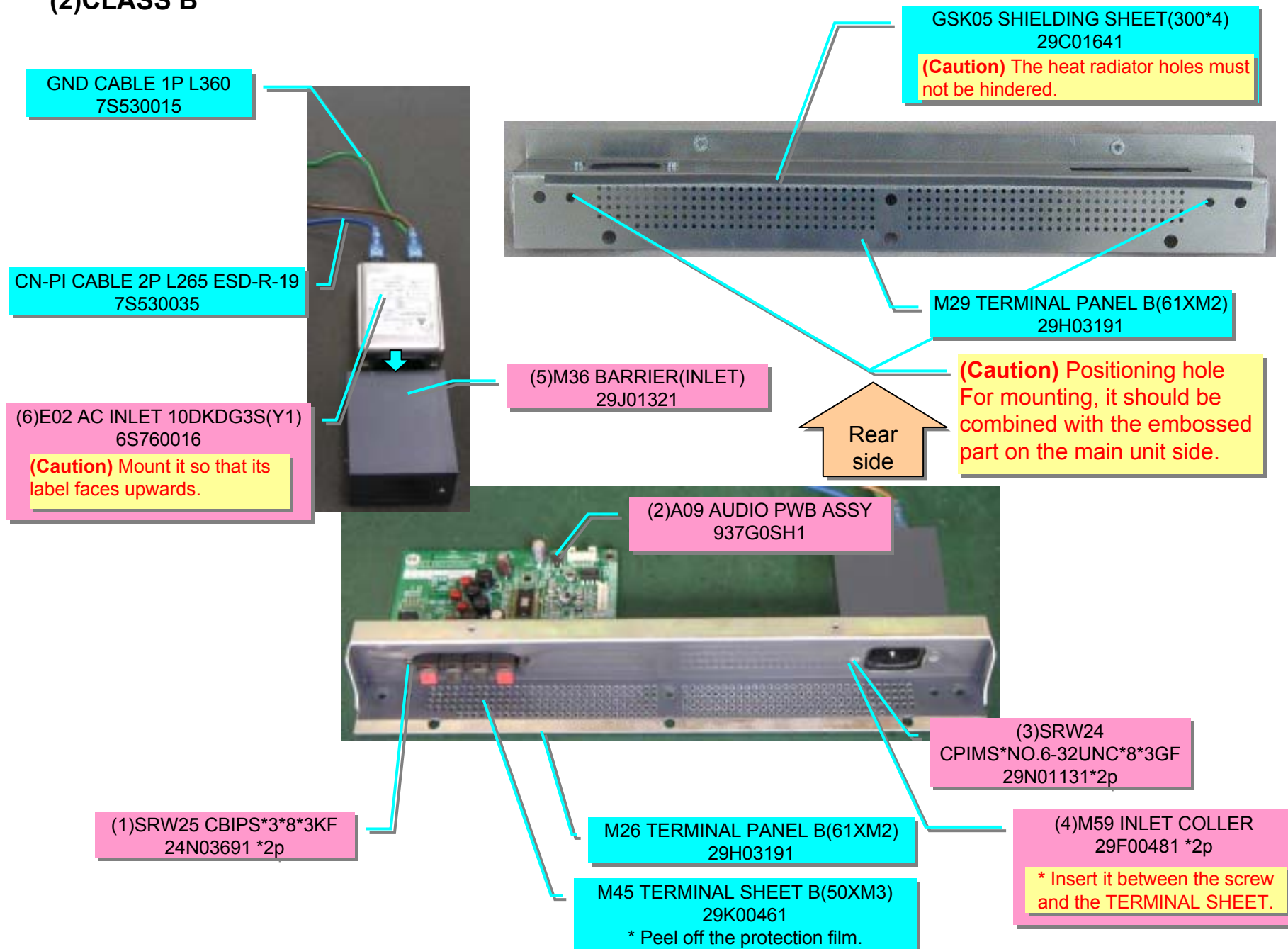


18. TERMINAL PANEL B/AUDIO PWB/AC INLET

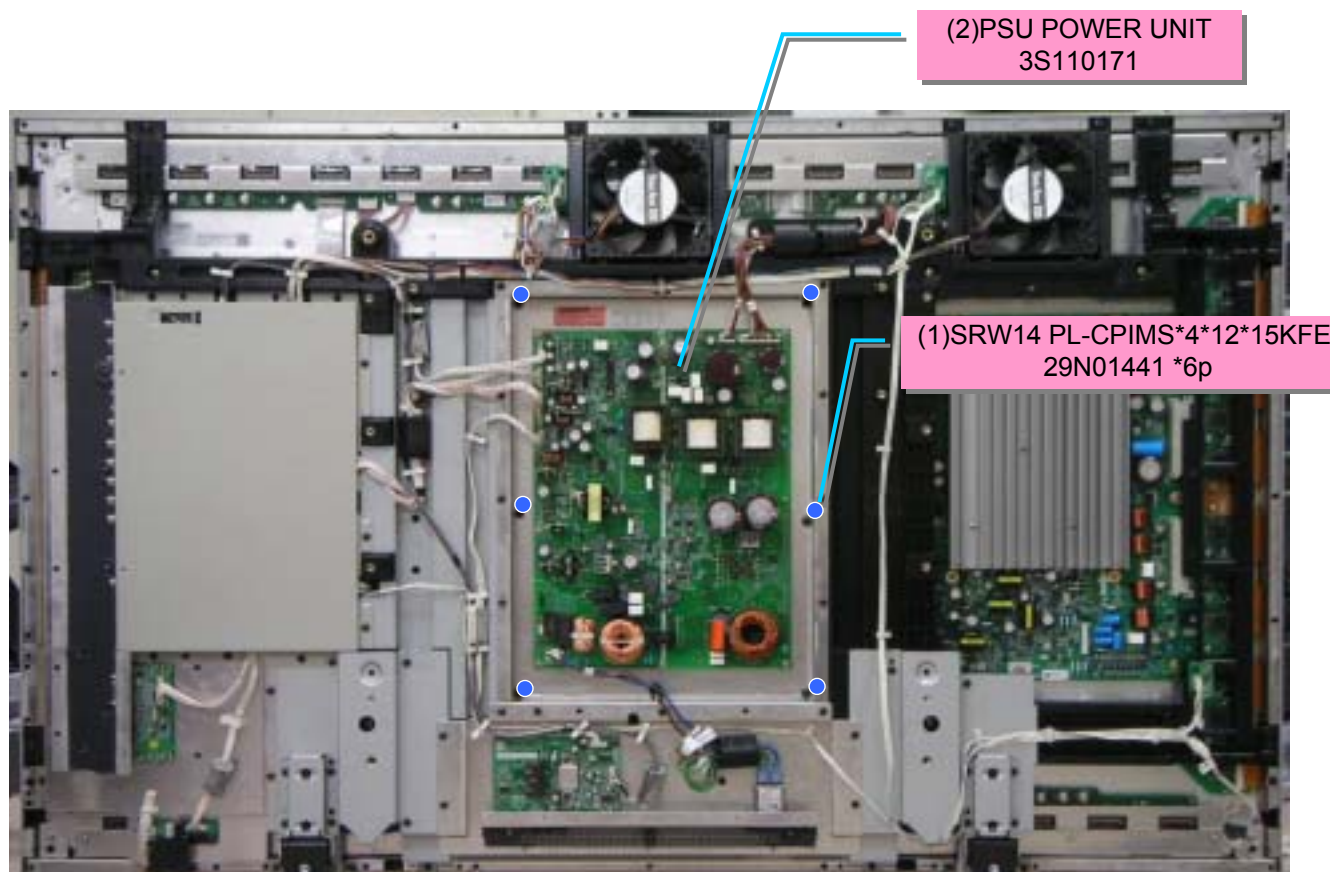
(1)CLASS A



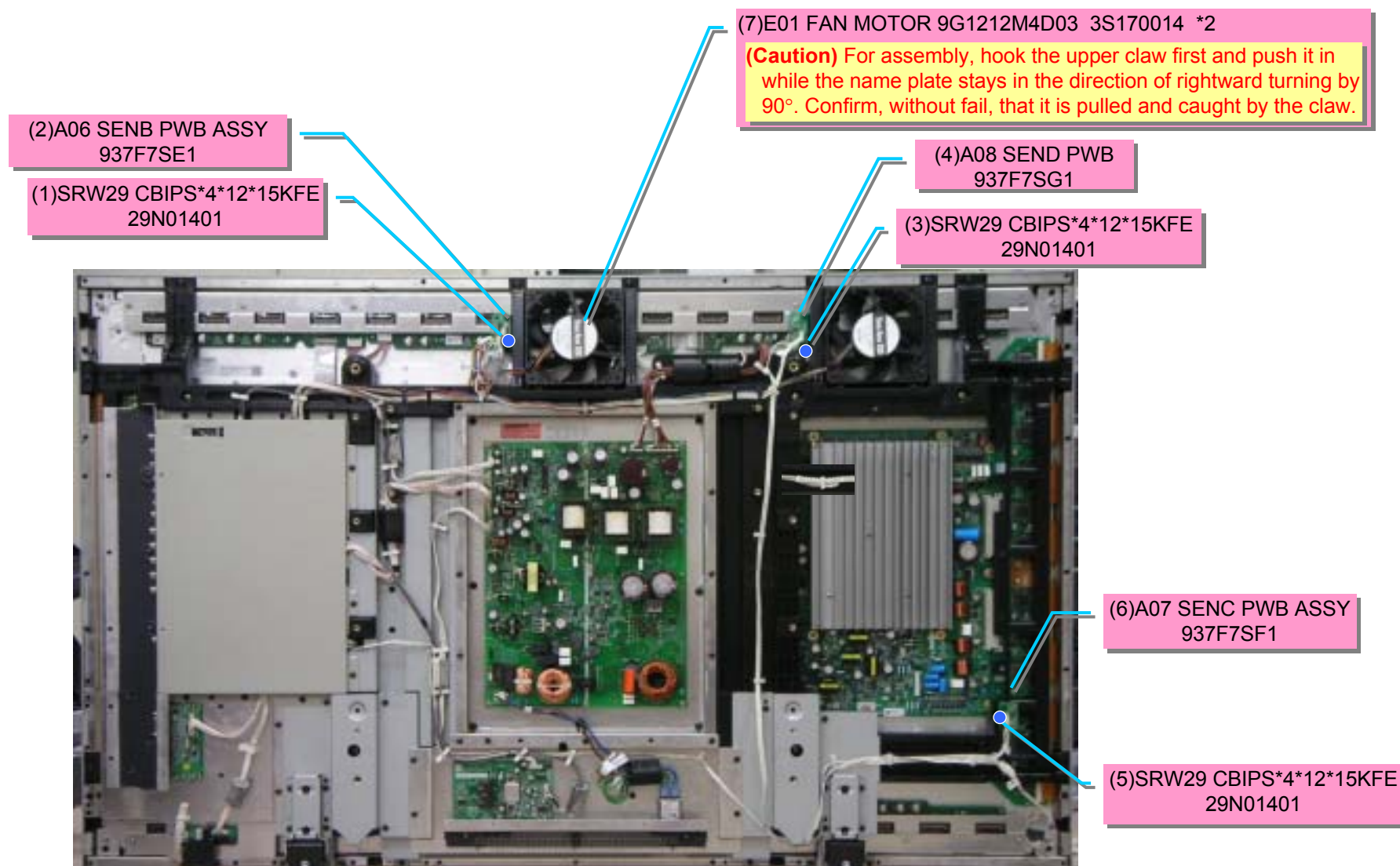
(2)CLASS B



19. POWER UNIT

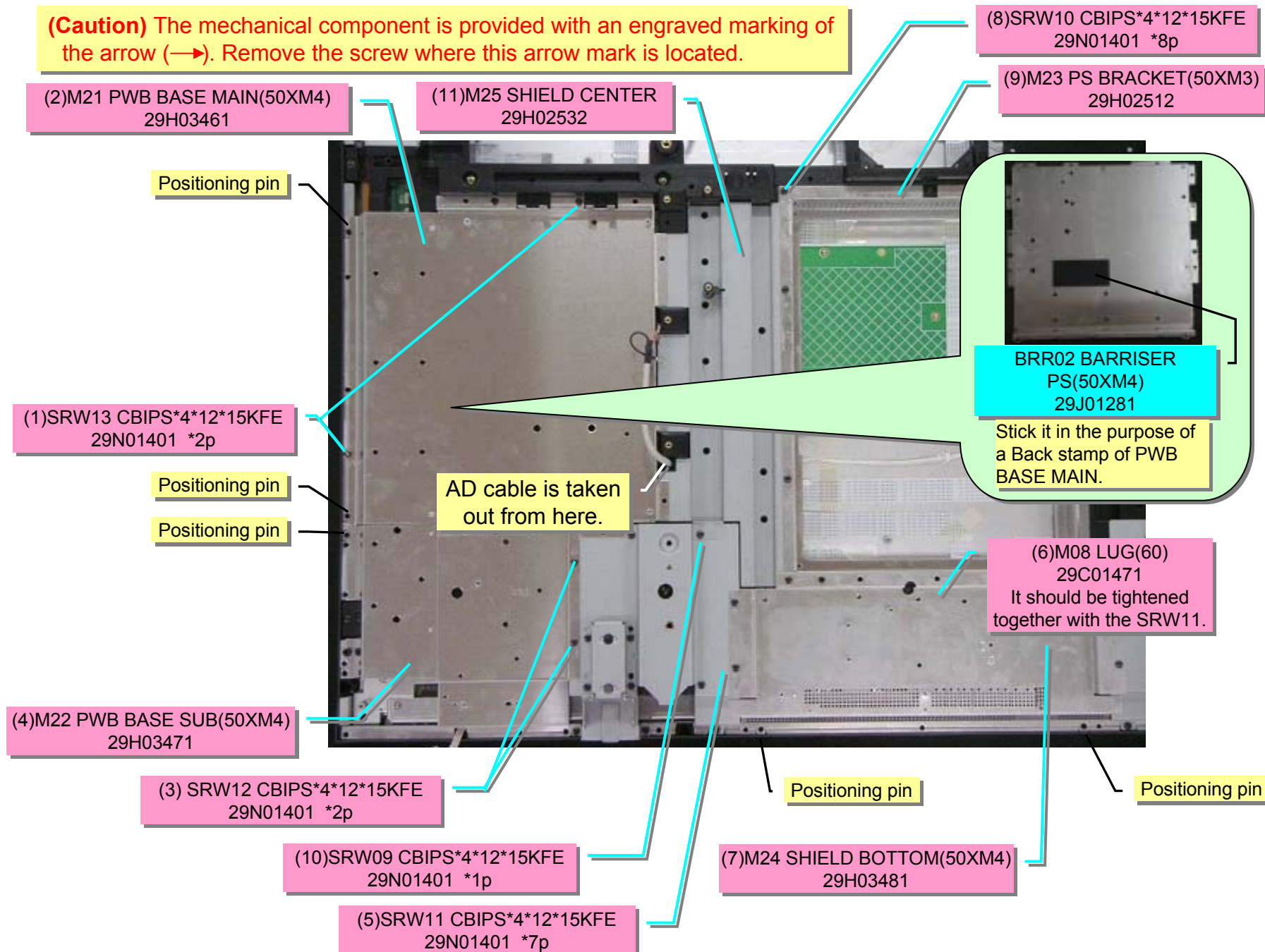


20. SENB PWB/SENC PWB/SEND PWB/FAN

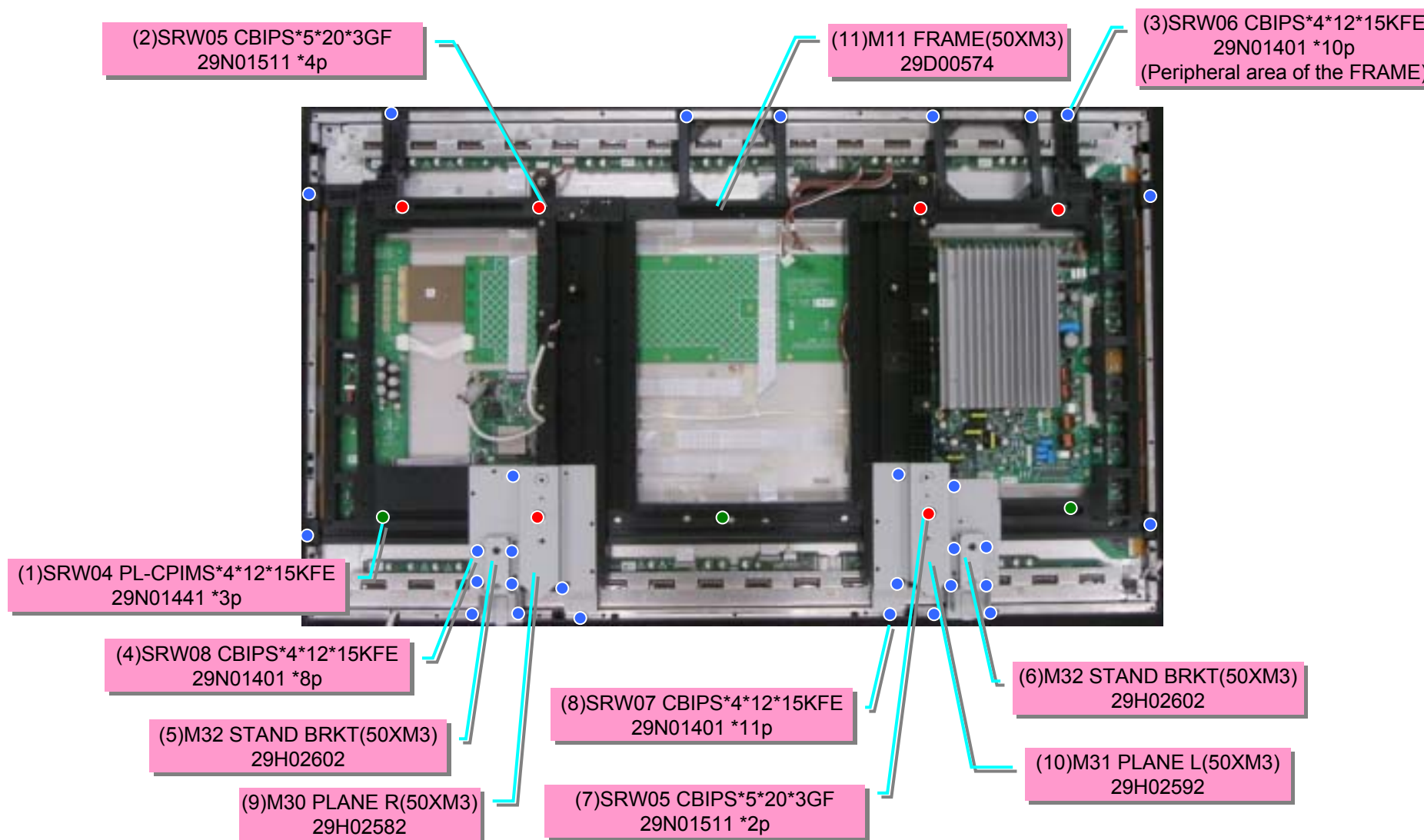


21. BRACKET/SHIELD

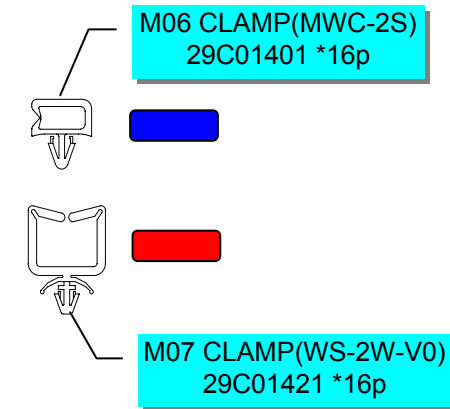
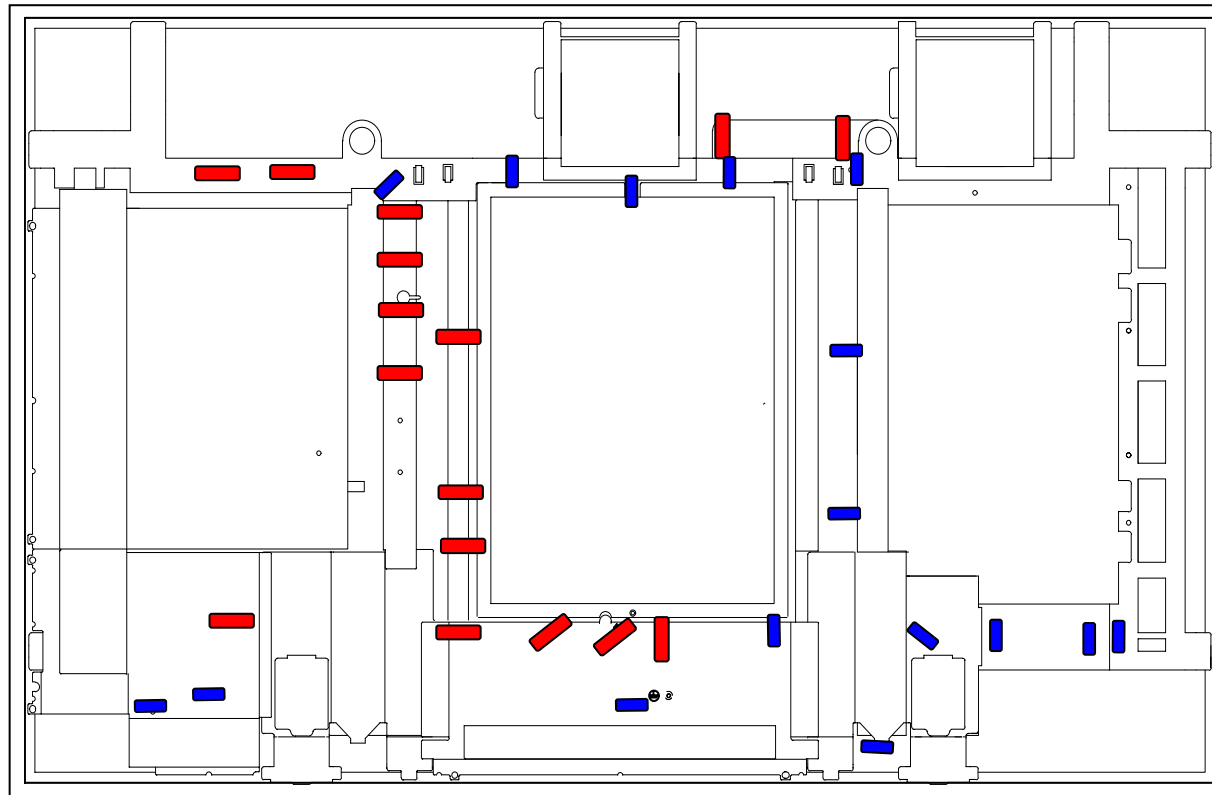
(Caution) The mechanical component is provided with an engraved marking of the arrow (→). Remove the screw where this arrow mark is located.



22. FRAME



23. WIRE CLAMP



24. GASCKET(CLASS B)

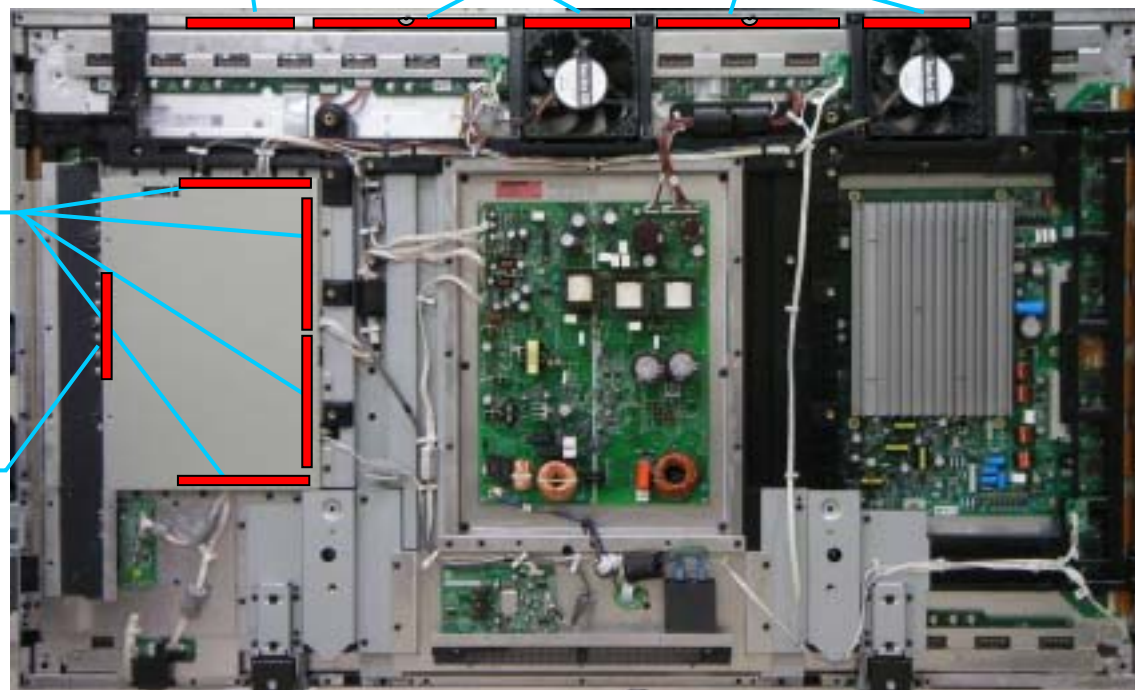
GSK03 SHIELDING SHEET(114*8)
29C01821 *3p

GSK02 SHIELDING SHEET(200*8)
29C01811 *2p

(Caution) Adhesion should be done in the state that the notch part is positioned upwards.

GSK01 GASKET(L140*13*T1.5)
29C01801 *4p

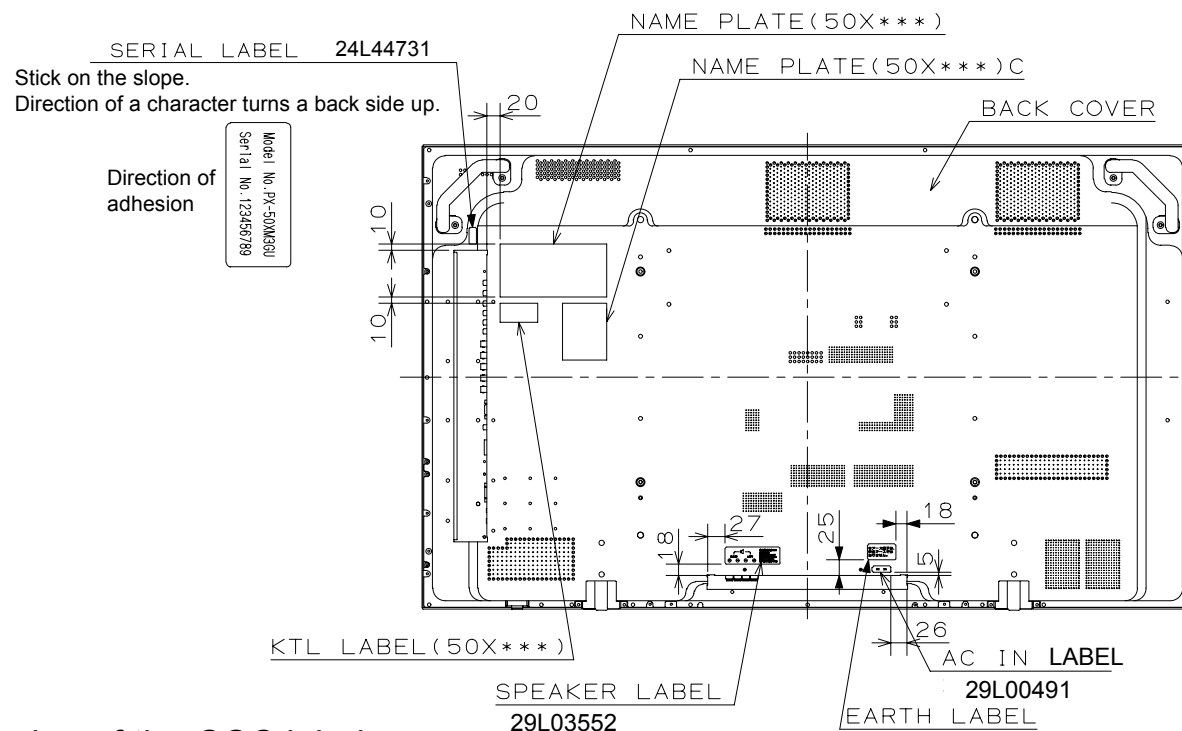
GSK04 SHIELDING SHEET(114*8)
29C01821 *1p



25. LABELS

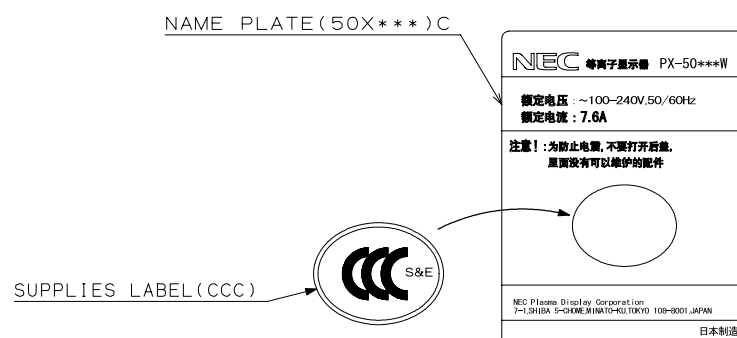
(1) Positions of adhesion

Stick the labels in the positions on the back cover illustrated below. Dimensions indicated are approximate figures. However, the presence of bends and air bubbles shall be reduced to a minimum.



Adhesion of the CCC label

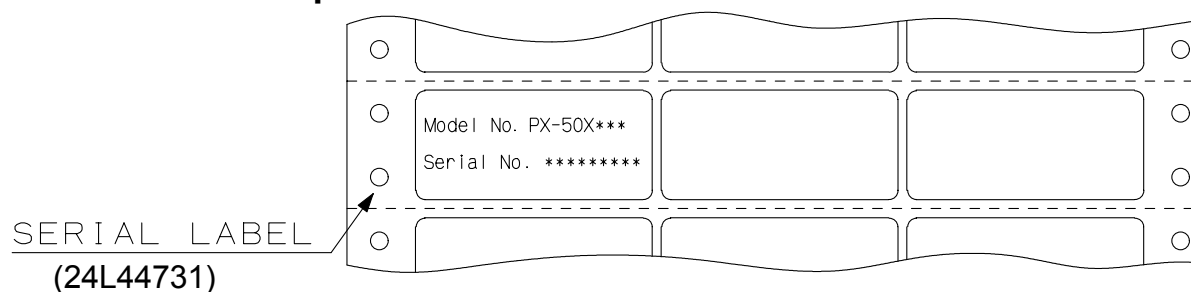
Stick the furnished CCC label approximately to the position indicated on the drawing of NAMEPLATE (50X***).



(2) NAME PLATE LIST

	NAME PLATE(50X***)	NAME PLATE(50X***)C	KTL LABEL(50X***)	EARTH LABEL
PX-50XM4J	NAME PLATE(50XM4J) 29L05691	Nothing	Nothing	LABEL(EARTH) 24L044791
PX-50XM4A	NAME PLATE(50XM4A) 2905701	Nothing	Nothing	Nothing
PX-50XM4W	NAME PLATE(50XM4W) 29L05711	NAME PLATE(50XM4W)C 29L05781	KTL LABEL(50XM4W) 29L05761	Nothing
PX-50XR4A	NAME PLATE(50XR4A) 29L05731	Nothing	Nothing	Nothing
PX-50XR4W	NAME PLATE(50XR4W) 29L05741	NAME PLATE(50XR4W)C 29L05791	KTL LABEL(50XR4W) 29L05771	Nothing

(3) Contents SERIAL LABEL printout



*The model name shall be printed out at the upper stage.

*The serial number shall be printed out at the lower stage. (Manufacture number control rules CPD-Standard-B102)
The numbering system for the serial number shall conform to the following:

4 7 0 1 2 3 4 9 S

Control symbols:	S → A → M → T → Z → N → K → U → C → W → J → P When all the symbols are used, the numbering order returns to S.
Production base:	9 (NEC Nagano)
Serial:	Serial numbers of 0000 ~ 9999 To be reset to 0001 each time the month of production is changed.
Model name:	Fixed to 0
Month of production:	January ~ September = 1 ~ 9, October = X, November = Y, December = Z
Year of production:	The lowest digit of the year of production

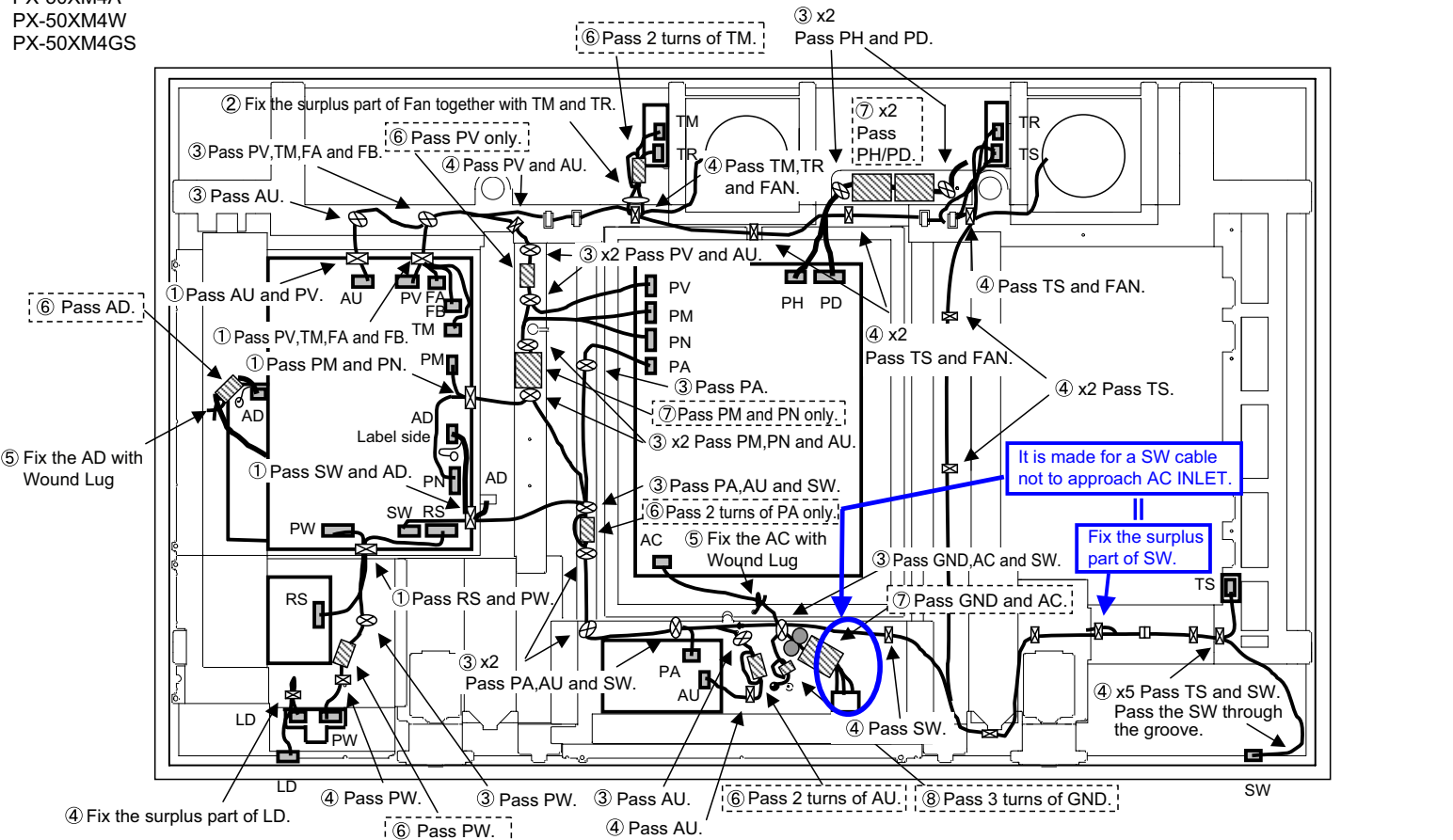
26. WIRING

(1)CLASS A

(Caution) "Turns" in the illustration below denotes the number of cable turns to be wound around the ferrite core. **(Example)** 3 turns → 3 turns of a cable wound around.

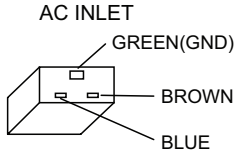
PX-50XM4 Series (CLASS A) Wiring Diagram

PX-50XM4J
PX-50XM4A
PX-50XM4W
PX-50XM4GS



PARTS NAME	PANTS NO.	Q'TY
① EDGING SADDLE(EDS-1208U)	29C00461	5
② CLAMPER,WIRE(D11.5)	24281251	1
③ CLAMP(WS-2W-V0)	29C01421	16
④ CLAMP(MWC-2S)	29C01401	16

PARTS NAME	PANTS NO.	Q'TY
⑤ LUG(L60)	29C01471	2
⑥ FERRITE CORE ZCAT2032-930	6S170005	6
⑦ CORE,FERRITE SFT-72SNB	6S170003	4
⑧ FERRITE CORE ESD-R-19	6S170007	1



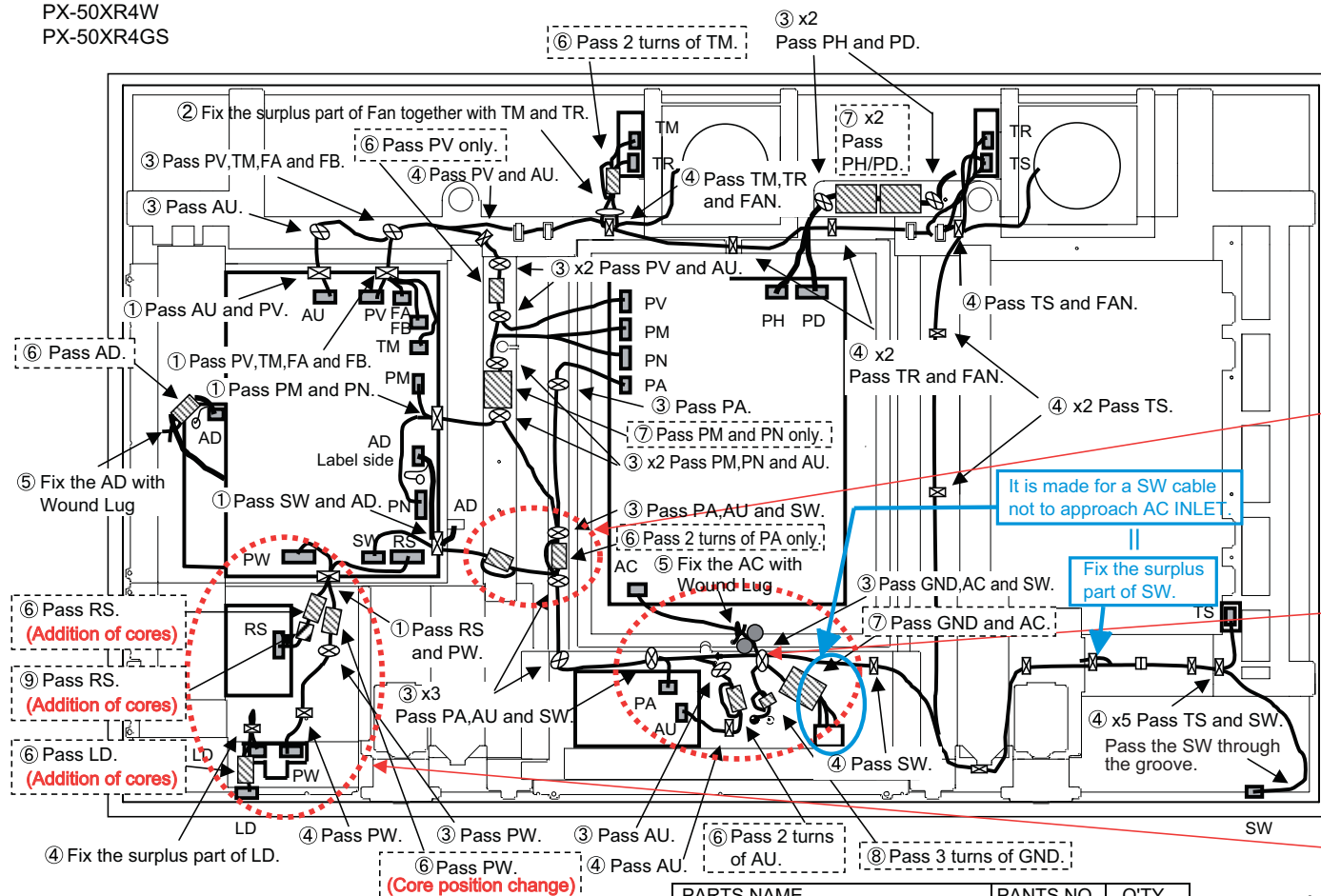
CCD board of PX-50XM4A : Try to push the bush rivet and the connector to check for the freedom from floating.

(2)CLASS B

(Caution) “Turns” in the illustration below denotes the number of cable turns to be wound around the ferrite core. **(Example)** 3 turns → 3 turns of a cable wound around.

PX-50XR4 Series (CLASS B) Wiring Diagram

PX-50XR4A
PX-50XR4W
PX-50XR4GS



Class B Model

- ① Remove the SW connector from the clamber block that is located at the upper level in the parentheses.
- ② Mount the core.

Class B Model

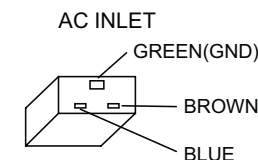
- ① The white accessory core (ESD-R-19) and the black core (SFT-72SN-O23K) located on the AC connector shall be separated from each other with the boundary of Clamper (3).
- ② The white accessory core (ESD-R-19) shall be separated from the AC power supply beyond the clamper.

Class B Model

- ① Addition of cores (3 pcs. in all)
FERRITE CORE ZCAT2032-930 2pcs.
FERRITE CORE ZCAT1518-0730 1pc.
② Core position change
FERRITE CORE ZCAT2032-930 1pc.

PARTS NAME	PANTS NO.	Q'TY
① EDGING SADDLE(EDS-1208U)	29C00461	5
② CLAMPER.WIRE(D11.5)	24281251	1
③ CLAMP(WS-2W-V0)	29C01421	16
④ CLAMP(MWC-2S)	29C01401	16

PARTS NAME	PANTS NO.	Q'TY
⑤ LUG(L60)	29C01471	2
⑥ FERRITE CORE ZCAT2032-930	6S170005	9
⑦ CORE,FERRITE SFT-72SNB	6S170003	4
⑧ FERRITE CORE ESD-R-19	6S170007	1
⑨ FERRITE CORE ZCAT1518-0730	6S170006	1

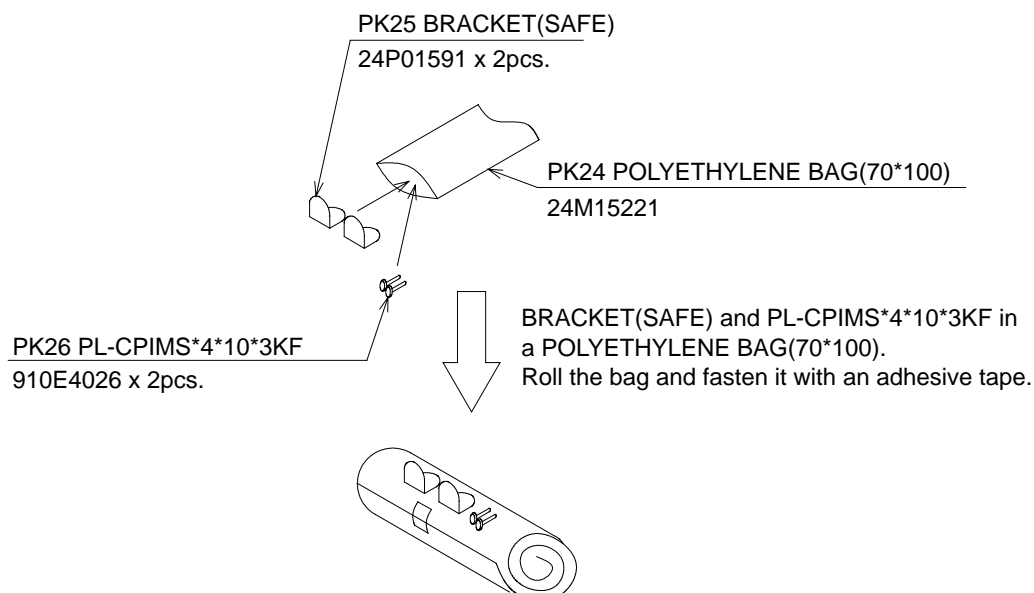


CCD board of PX-50XR4A : Try to push the bush rivet and the connector to check for the freedom from floating.

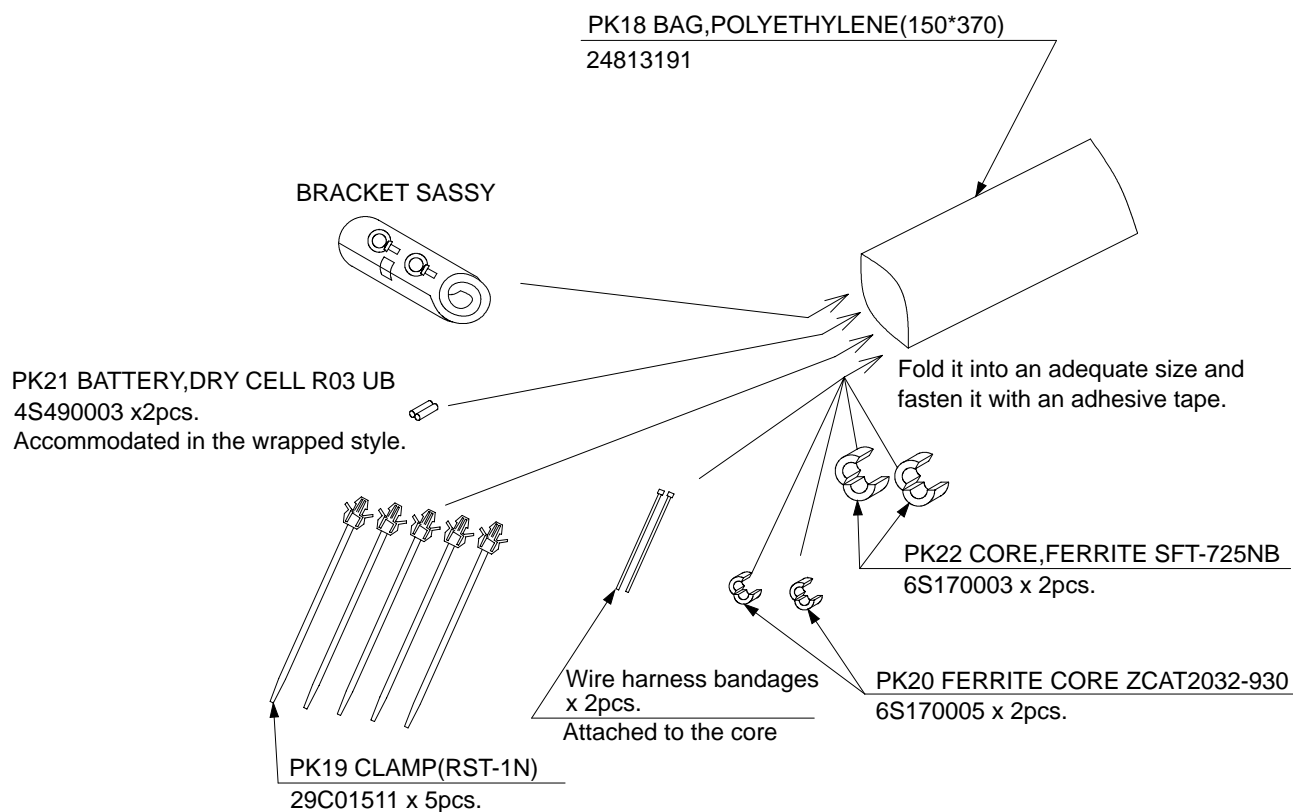
METHOD OF PACKAGING

PX-50XM4A

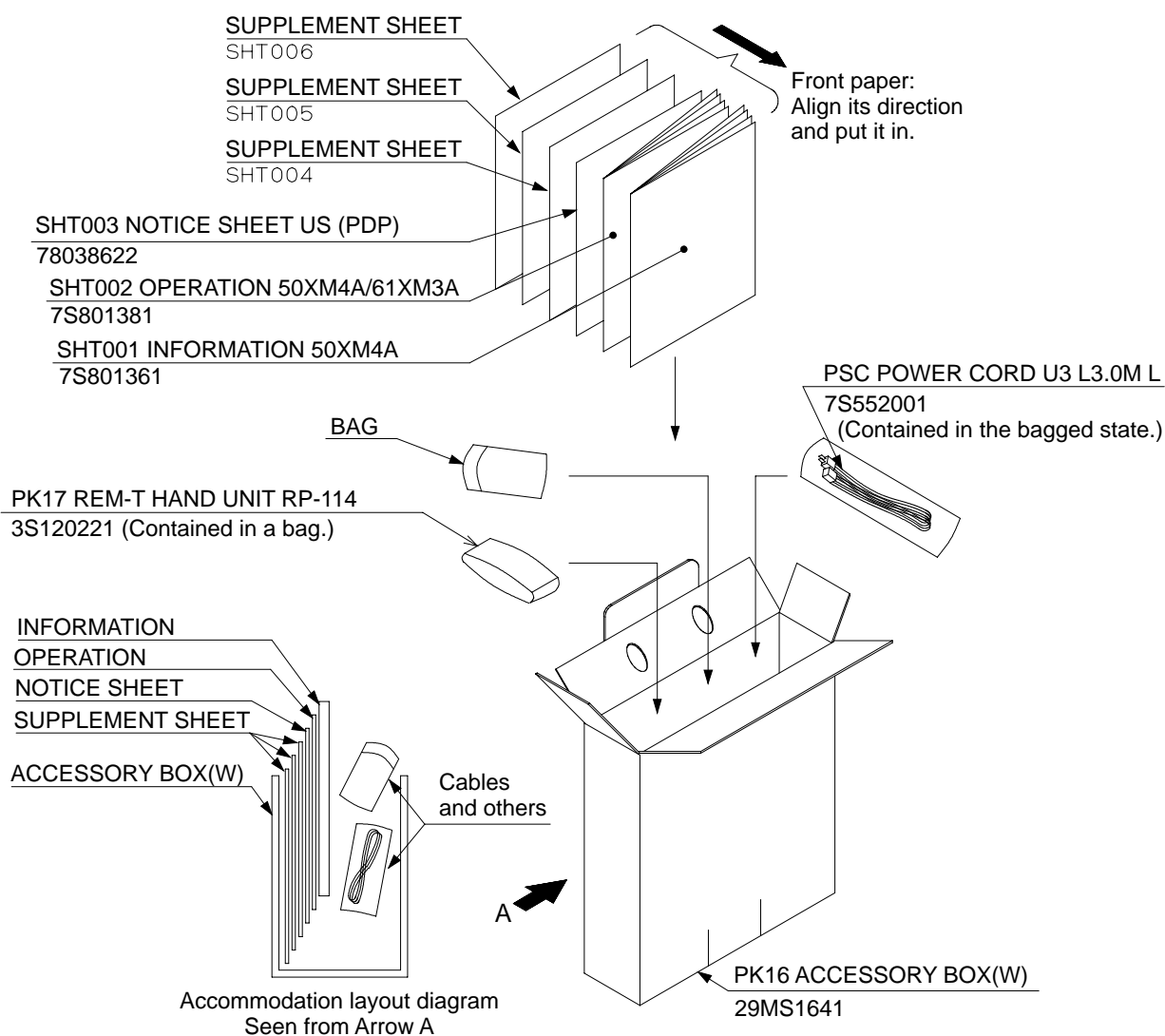
A) BRACKET SASSY



B) ACCESSORY SASSY

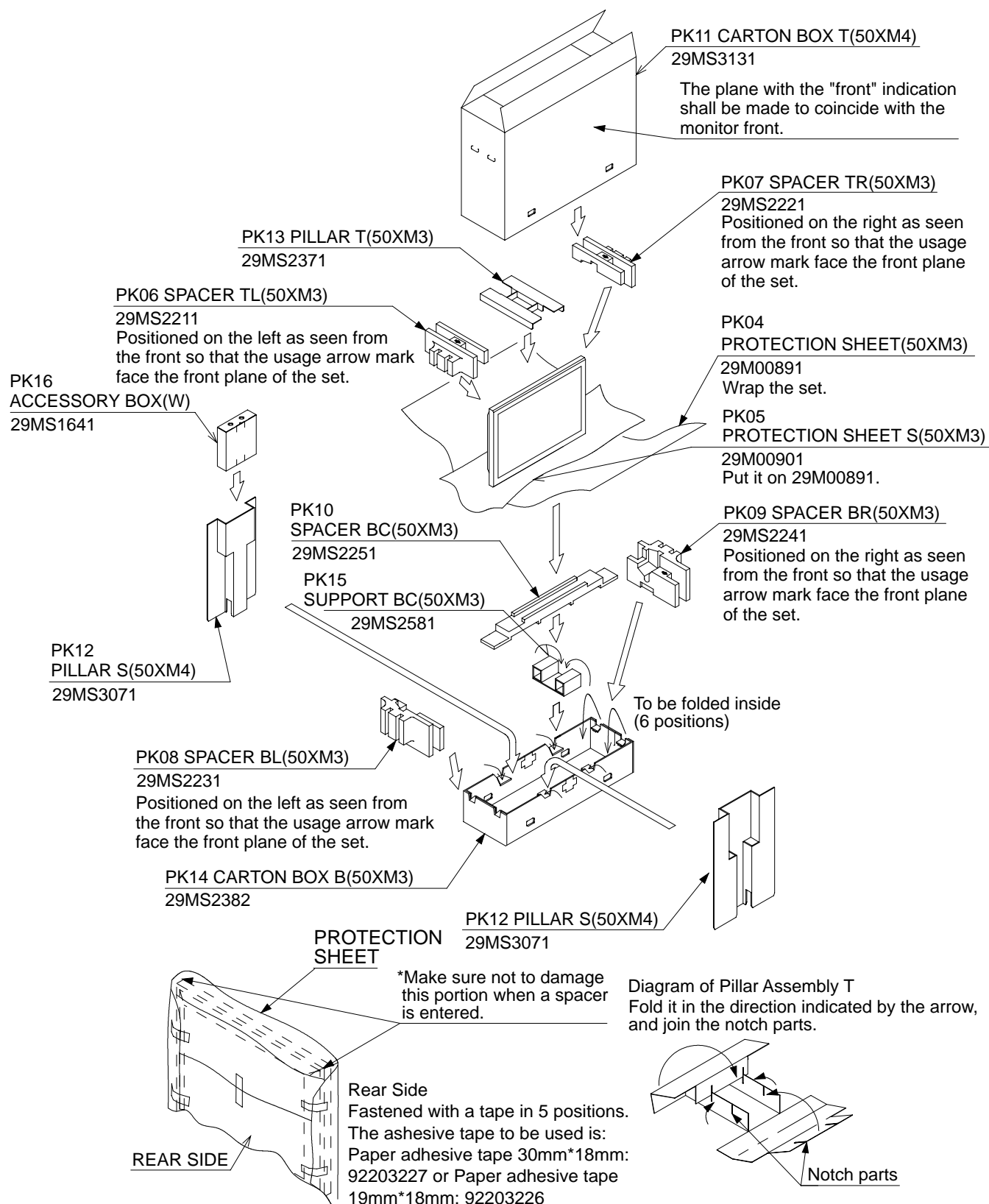


C) ACCESSORY BOX (W)



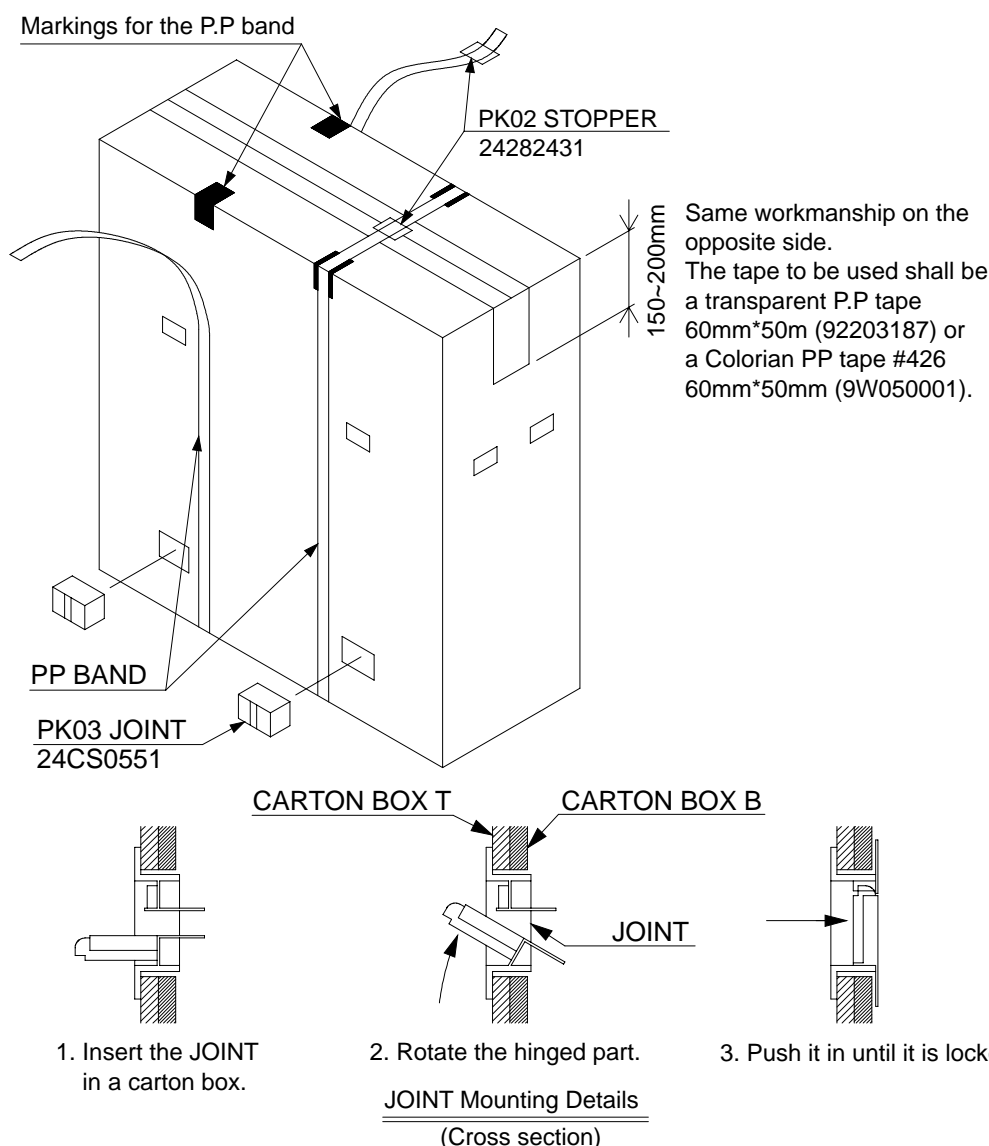
Name Titled	Circuit Symbol	Material Name	Material Code	Quantity Needed
POWER CORD	PSC	POWER CORD U3 L3.0M L	7S552001	1
	PSC	POWER CORD U3 L3.0M L	7S552004	or 0
INFORMATION	SHT001	INFORMATION 50XM4A	7S801361	1
OPERATION	SHT002	OPERATION 50XM4A/61XM3A	7S801381	1
NOTICE SHEET	SHT003	NOTICE SHEET US (PDP)	78038622	1
SUPPLEMENT SHEET	SHT004	Nil	Nil	Nil
	SHT005	Nil	Nil	Nil
	SHT006	Nil	Nil	Nil

D) SPACER, PILLAR, CARTON BOX



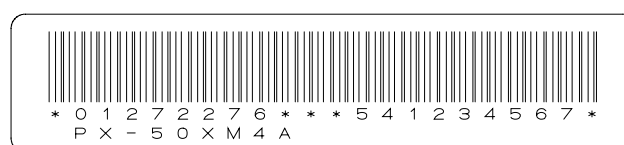
E) JOINT, PP BAND, STOPPER

To be locked by inserting the joints (24CS0551) in 4 positions.
Hang the P.P band based on the marking printed on the carton box edge line and fasten it with a stopper (P.P band) (24282431).



F) BAR CORD SERIAL LABEL

The required items shall be printed on the barcode serial label (16761791).
Detailed contents of printing shall conform to the diagram below.



Detailed Contents of Printing for the BARCODE SERIAL LABEL

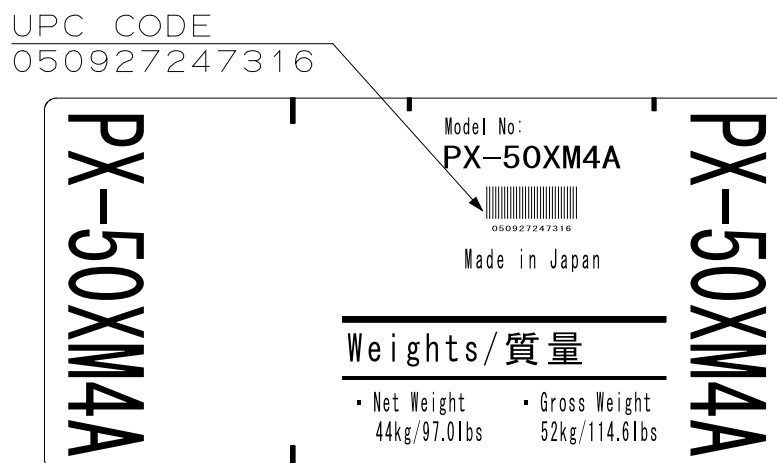
Upper stage: Print a barcode with the same contents as those of the middle stage.

Middle stage: To be printed out in the order of asterisk, merchandise code (in 8 digits), 3 spaces, serial number (in 9 digits), and asterisk. The merchandise code is "01272276". The serial number shall be the same as the one that is printed on the serial label (24L44731) of the set main body.

Lower stage: Print out Model No. "PX-50XM4A".

G) MODEL NAME LABEL

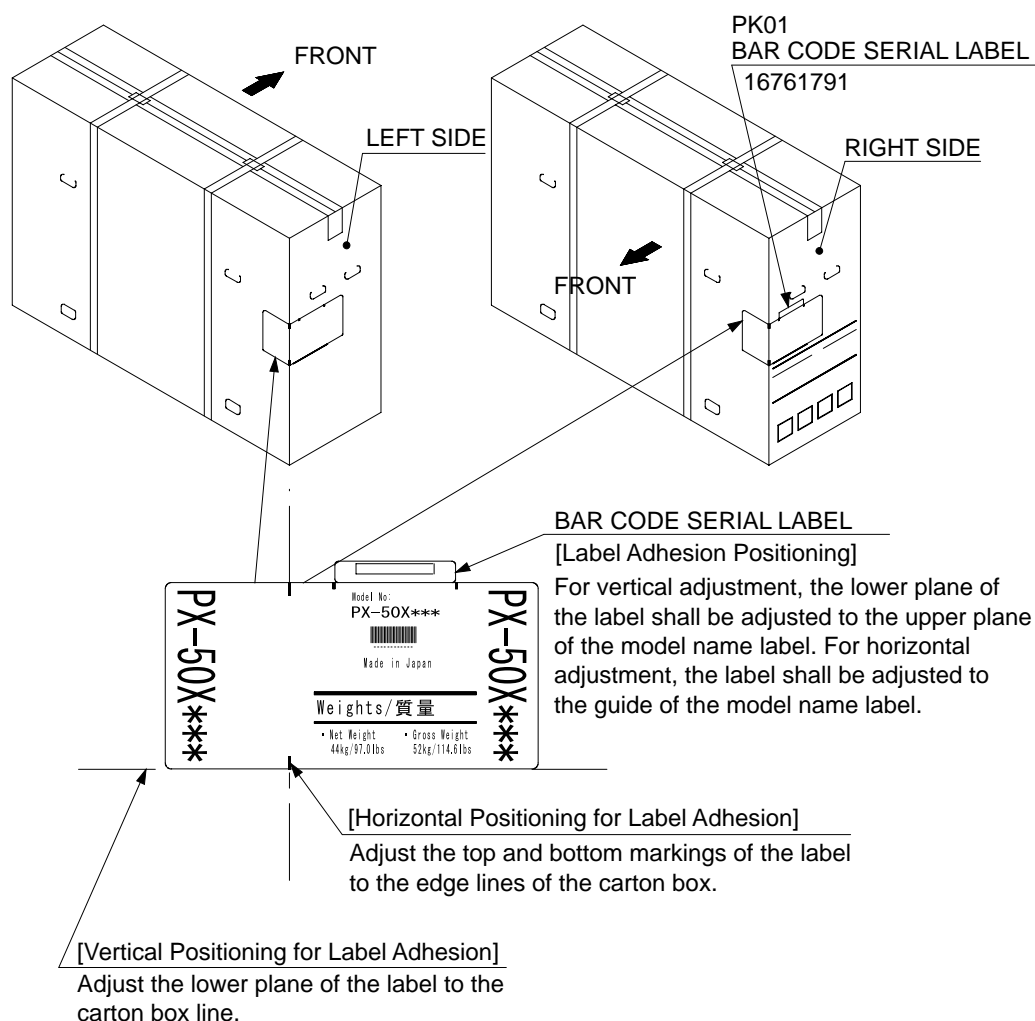
Print out the model name, the POS code, weight, etc., on the model name label (29L05951). Detailed contents shall conform to the diagram below. In regard to the size, character height, line boldness, and font, refer to the model name label (61XM3G) (29L06491).



Detailed Contents of Printing for the MODEL NAME LABEL

H) Adhesion of the MODEL NAME LABEL and BAR CODE SERIAL LABEL

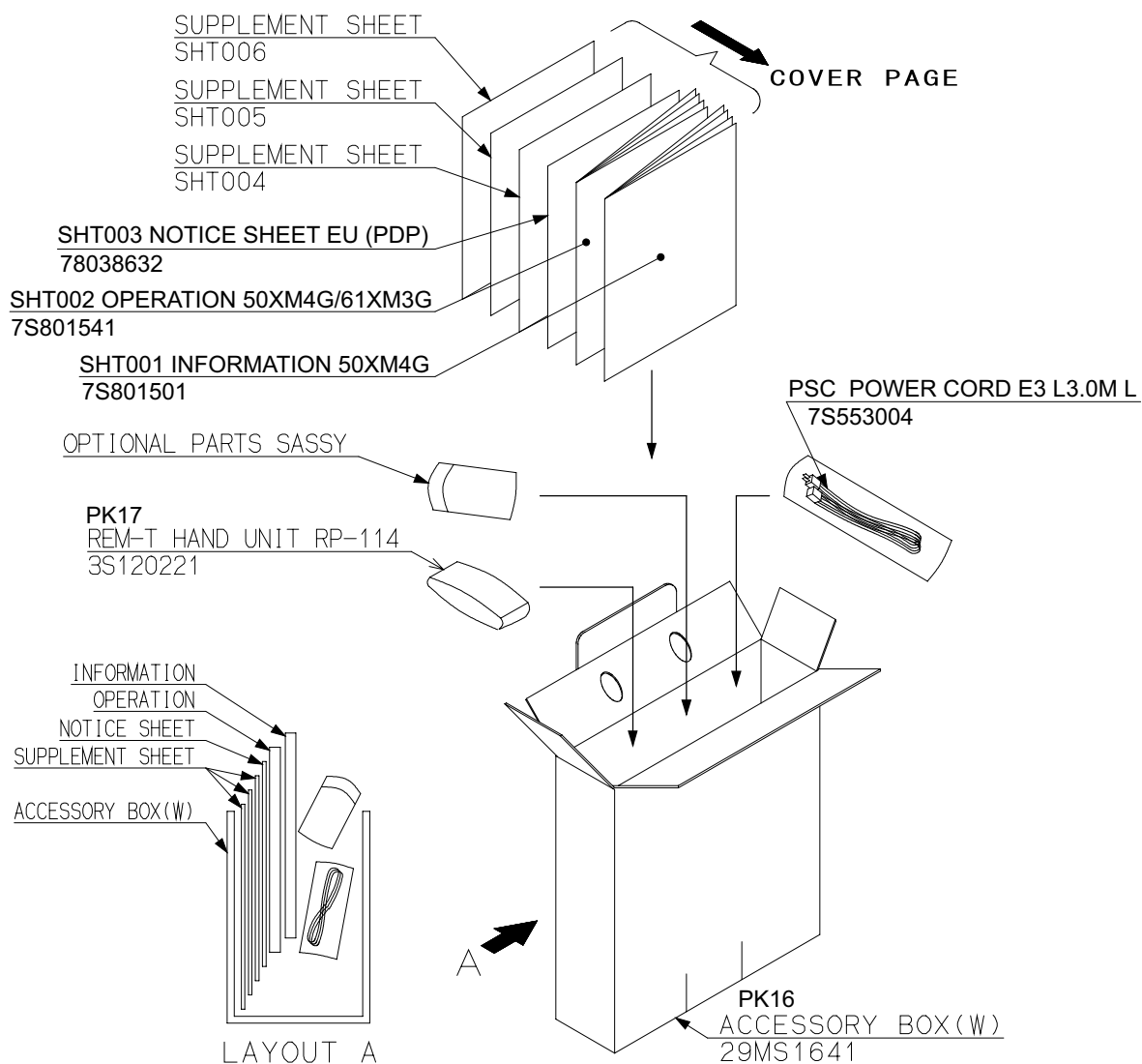
Stick the model name labels (29L05951) to both right and left sides shown in the diagram below. Stick the barcode serial label (16761791) to the right side plane shown in the diagram below.



METHOD OF PACKAGING

PX-50XM4G

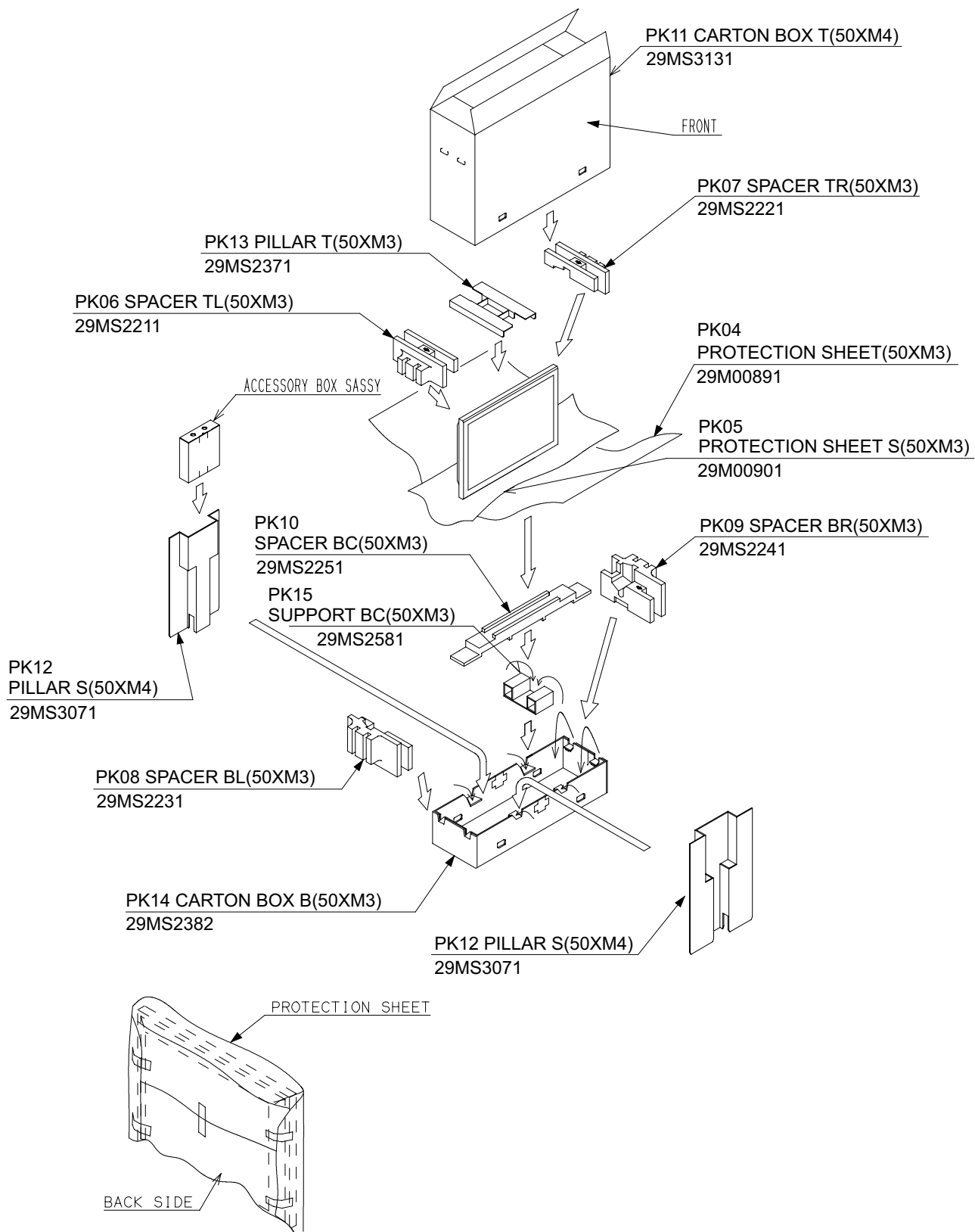
A) ACCESSORY BOX(W)



NOTATION NAME	CIRCUIT SIGN	MATERIALS NAME	MATERIALS CODE	QUANTITY
POWER CORD	PSC	POWER CORD E3 L3.0M L	7S553004	1
INFORMATION	SHT001	INFORMATION 50XM4G	7S801501	1
OPERATION	SHT002	OPERATION 50XM4G/61XM3G	7S801541	1
NOTICE SHEET	SHT003	NOTICE SHEET EU(PDP)	78038632	1
SUPPLEMENT SHEET	SHT004	NOTHING	NOTHING	NOTHING
	SHT005	NOTHING	NOTHING	NOTHING
	SHT006	NOTHING	NOTHING	NOTHING

B) SPACER, PILLAR, CARTON BOX

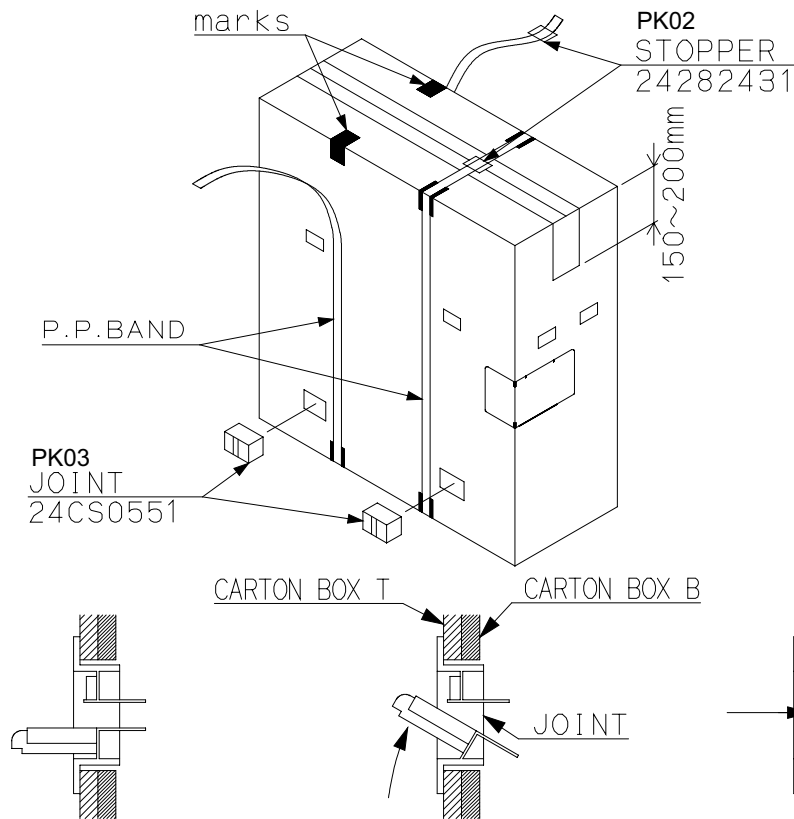
CONFIDENTIAL



C) JOINT, STOPPER

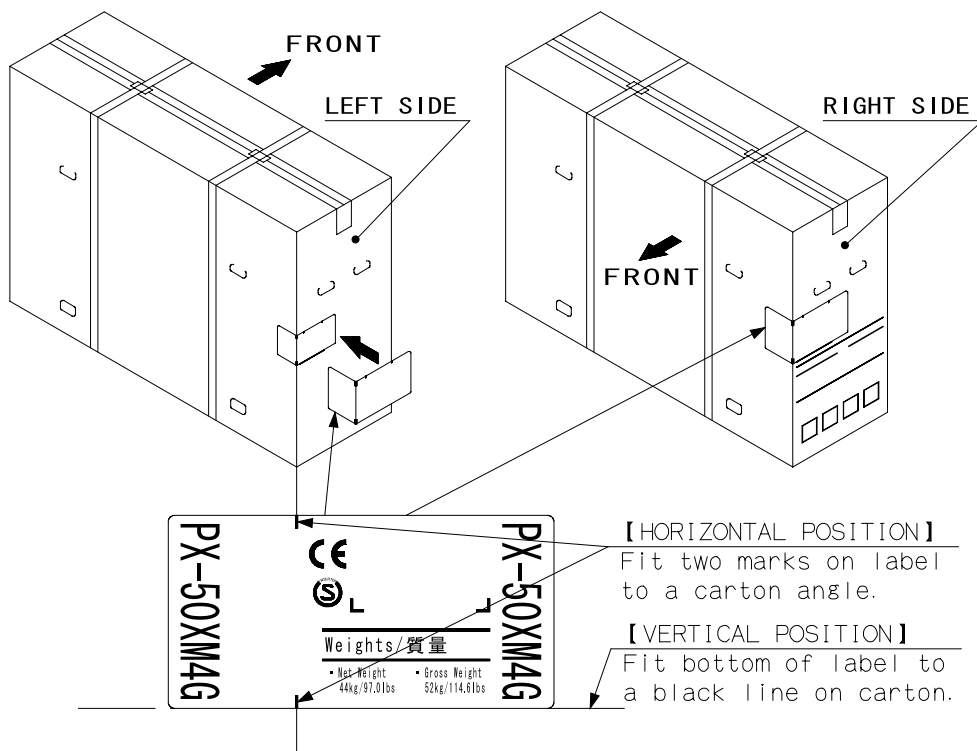
CONFIDENTIAL

Fasten CARTON BOX T to CARON BOX B with four JOINTS(24CS0551).
Fasten up two P.P.BANDS on printed black marks with two STOPPERS(24282431).



D) MODEL NAME LABEL

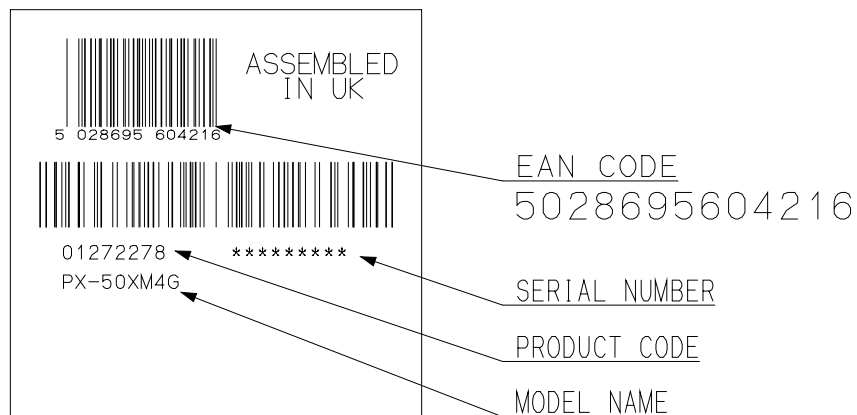
Apply MODEL NAME LABEL(50XM4G)(29L06811) to two angles of CARTON BOX T.



E) ASSEMBLED IN UK LABEL DETAIL

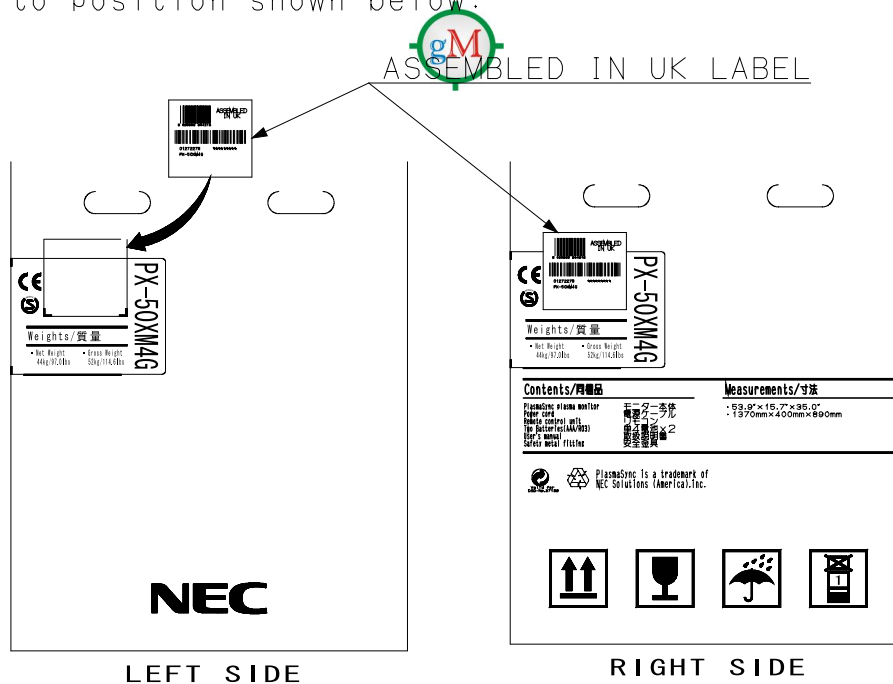
CONFIDENTIAL

Print EAN CODE, SERIAL NUMBER, PRODUCT CODE and MODEL NAME.
See below figure.



F) ASSEMBLED IN UK LABEL APPLYING

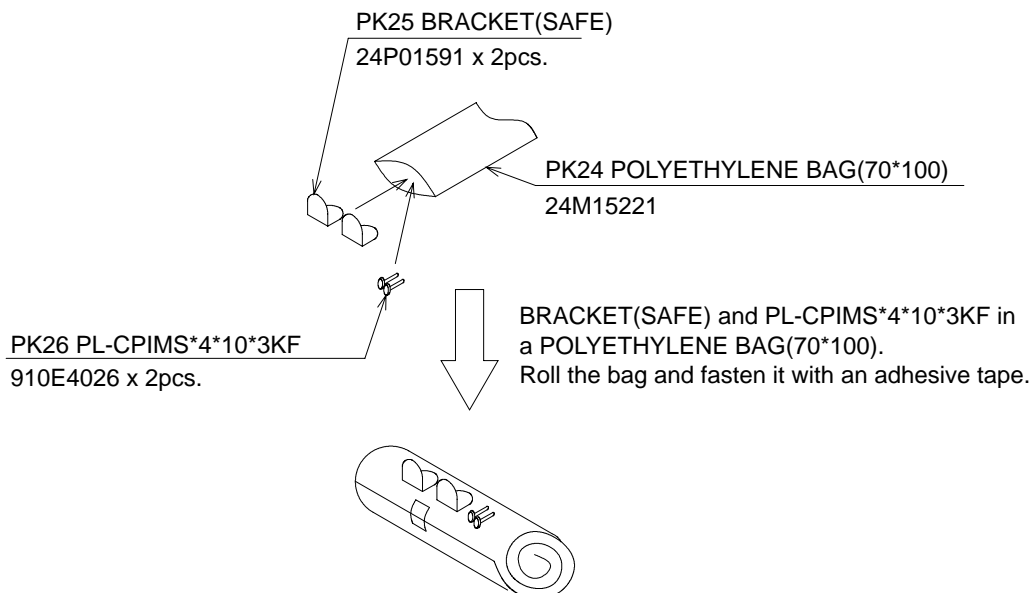
Apply ASSEMBLED IN UK LABEL
to position shown below.



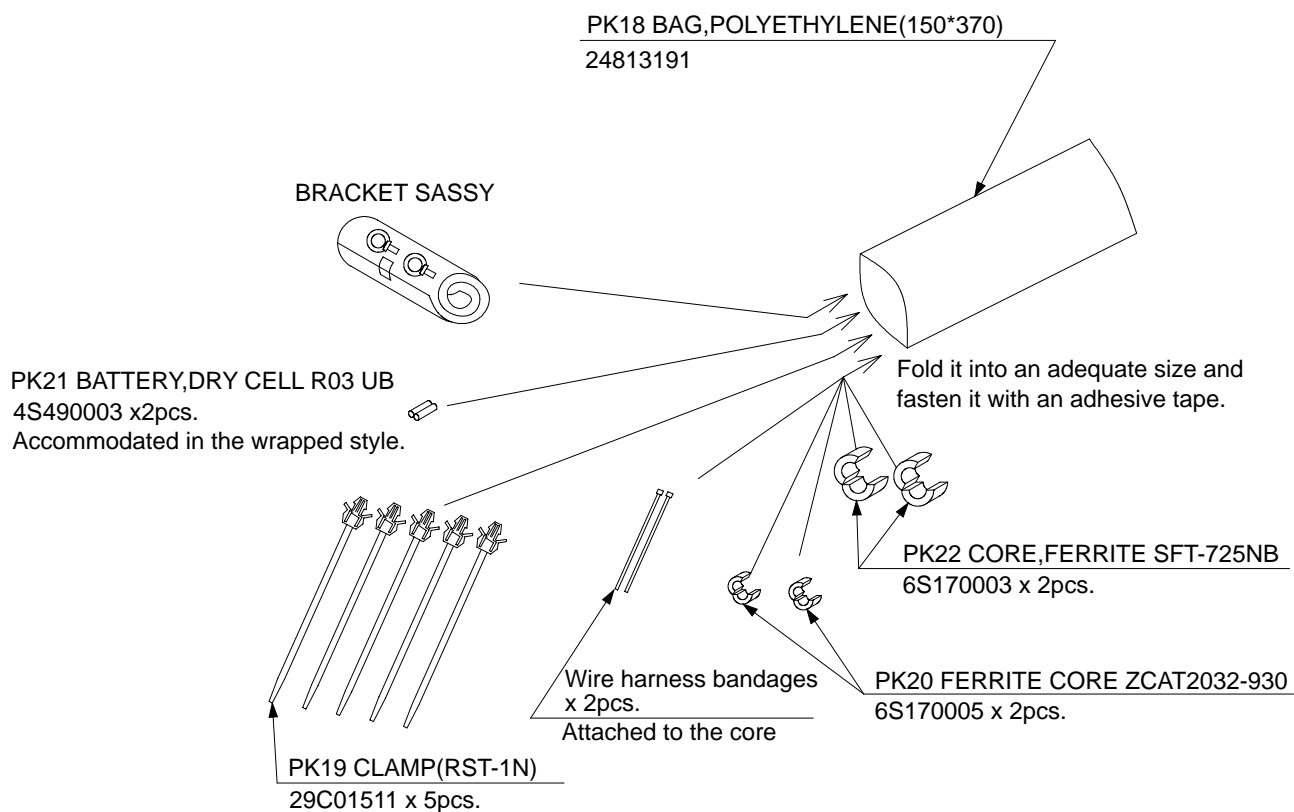
METHOD OF PACKAGING

PX-50XM4W

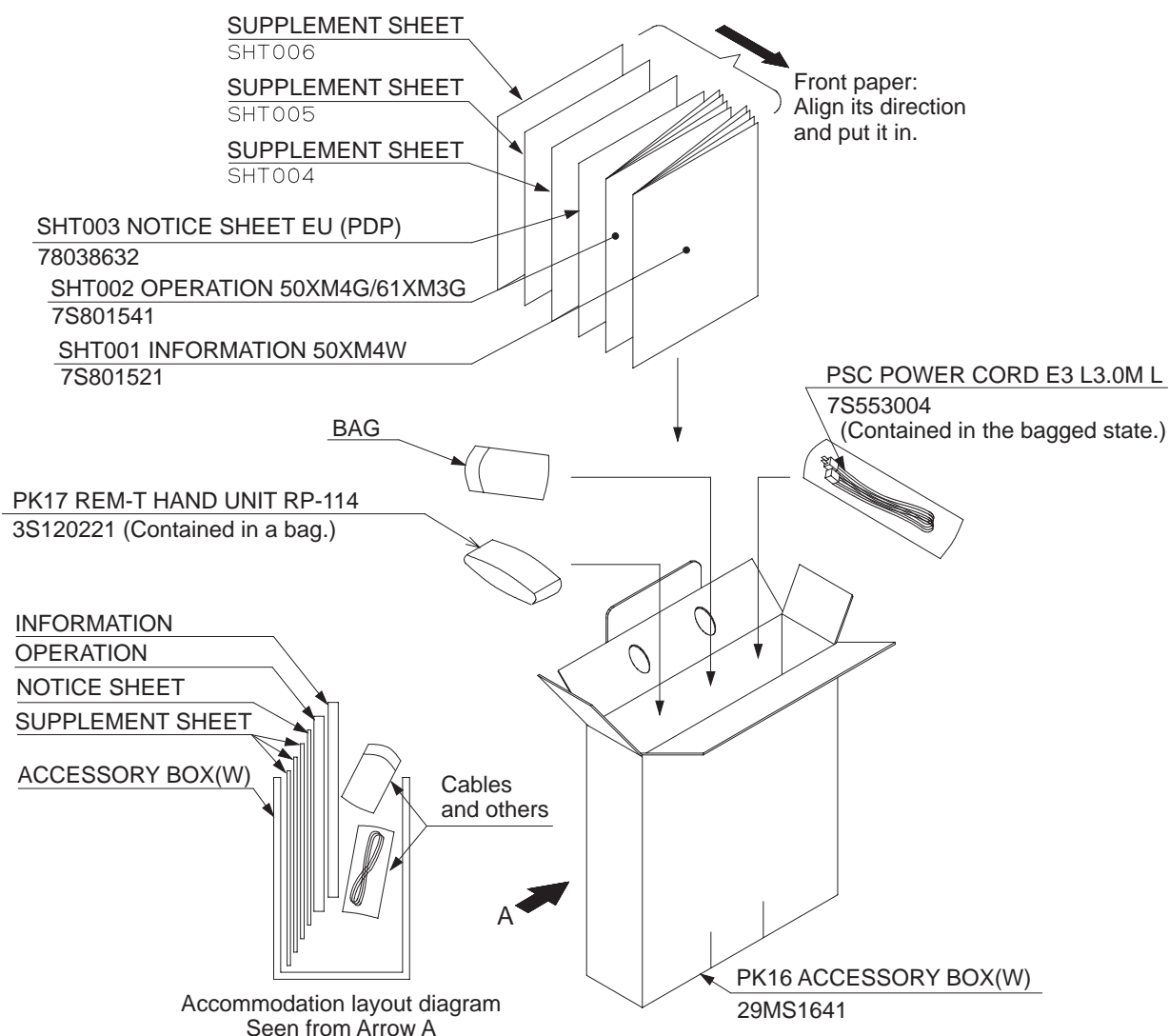
A) BRACKET SASSY



B) ACCESSORY SASSY

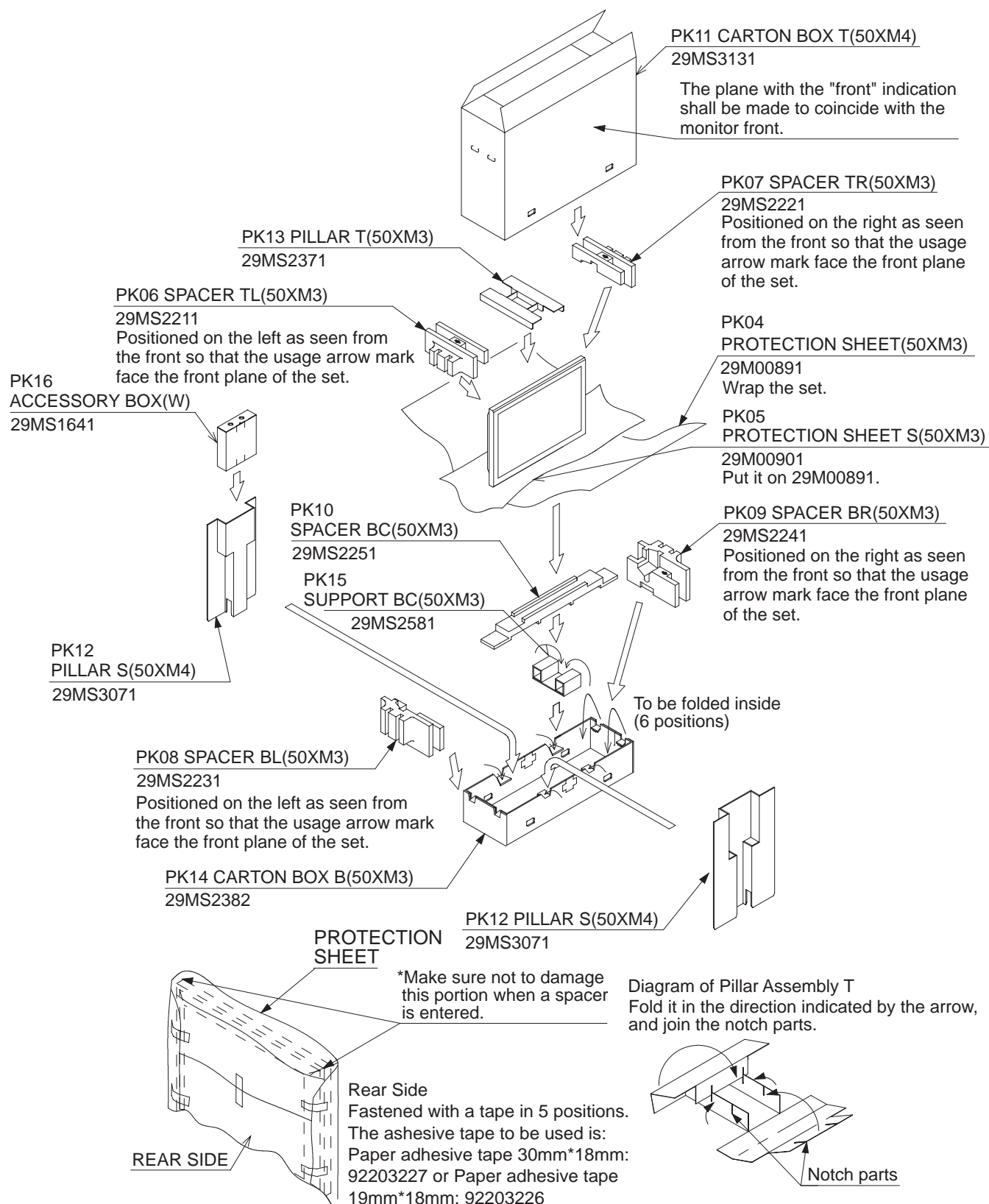


C) ACCESSORY BOX (W)



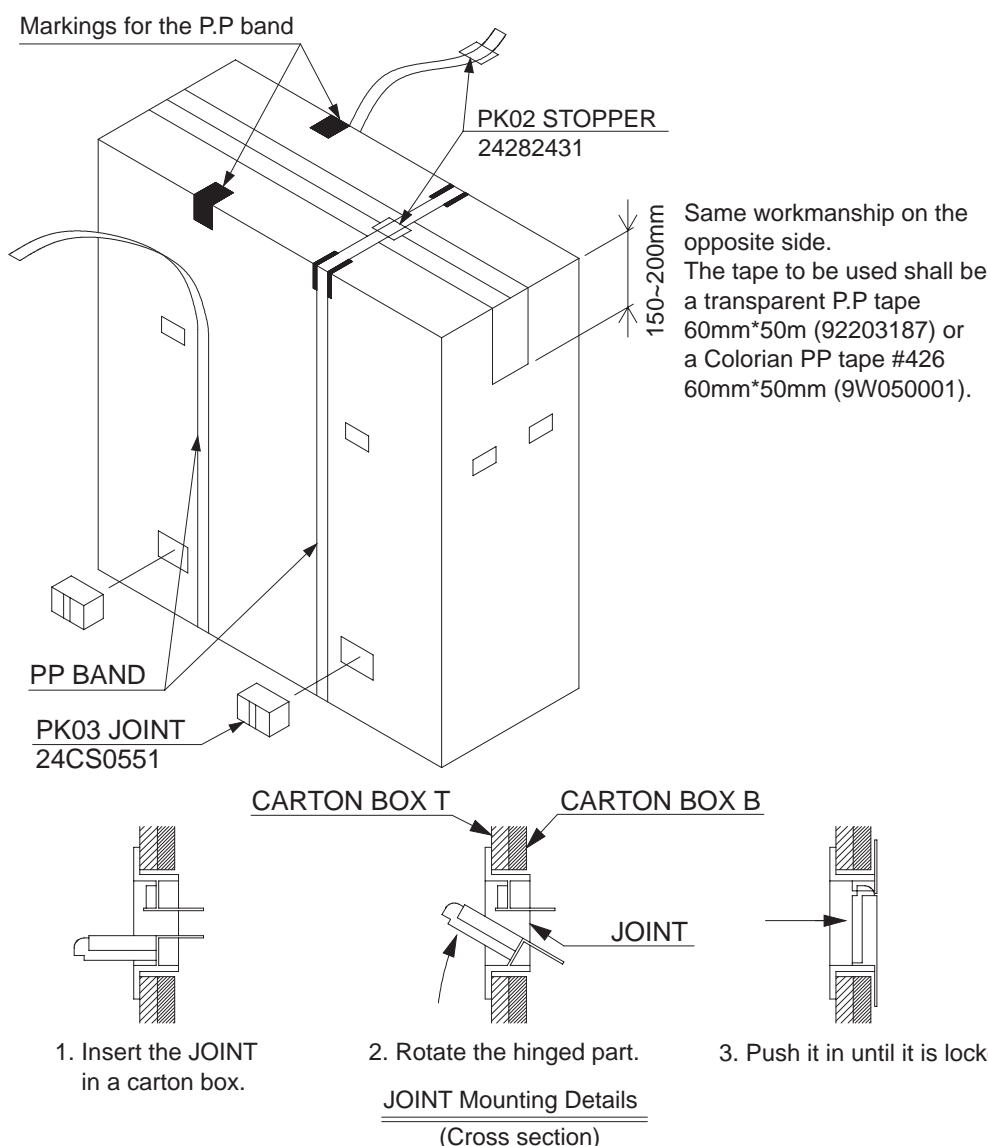
Name Titled	Circuit Symbol	Material Name	Material Code	Quantity Needed
POWER CORD	PSC	POWER CORD E3 L3.0M L	7S553004	1
INFORMATION	SHT001	INFORMATION 50XM4W	7S801521	1
OPERATION	SHT002	OPERATION 50XM4G/61XM3G	7S801541	1
NOTICE SHEET	SHT003	NOTICE SHEET EU (PDP)	78038632	1
SUPPLEMENT SHEET	SHT004	Nil	Nil	Nil
	SHT005	Nil	Nil	Nil
	SHT006	Nil	Nil	Nil

D) SPACER, PILLAR, CARTON BOX



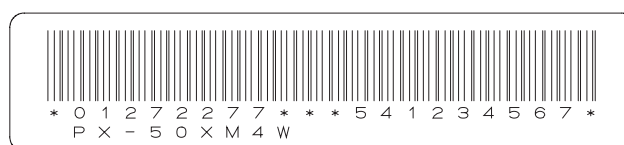
E) JOINT, PP BAND, STOPPER

To be locked by inserting the joints (24CS0551) in 4 positions.
Hang the P.P band based on the marking printed on the carton box edge line and fasten it with a stopper (P.P band) (24282431).



F) BAR CORD SERIAL LABEL

The required items shall be printed on the barcode serial label (16761791).
Detailed contents of printing shall conform to the diagram below.



Detailed Contents of Printing for the BARCODE SERIAL LABEL

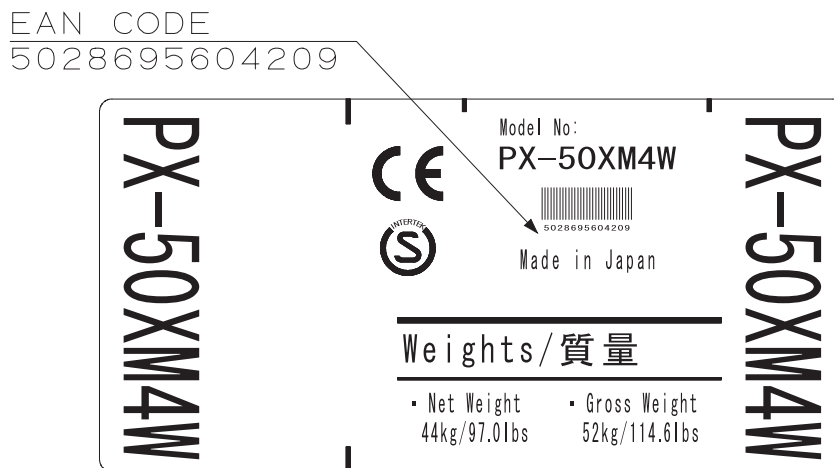
Upper stage: Print a barcode with the same contents as those of the middle stage.

Middle stage: To be printed out in the order of asterisk, merchandise code (in 8 digits), 3 spaces, serial number (in 9 digits), and asterisk. The merchandise code is "01272277". The serial number shall be the same as the one that is printed on the serial label (24L44731) of the set main body.

Lower stage: Print out Model No. "PX-50XM4W".

G) MODEL NAME LABEL

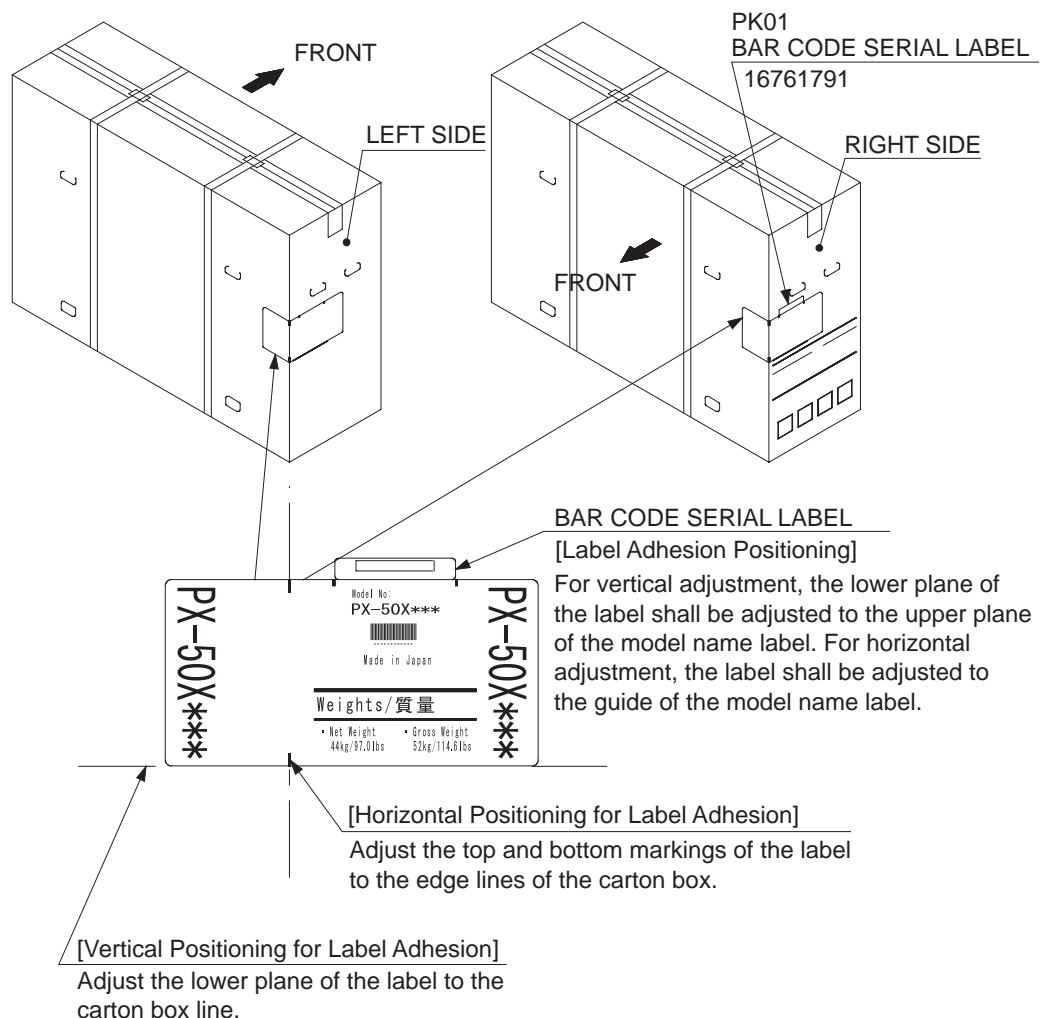
Print out the model name, the POS code, weight, etc., on the model name label (29L05951). Detailed contents shall conform to the diagram below. In regard to the size, character height, line boldness, and font, refer to the model name label (61XM3G) (29L06491).



Detailed Contents of Printing for the MODEL NAME LABEL

H) Adhesion of the MODEL NAME LABEL and BAR CODE SERIAL LABEL

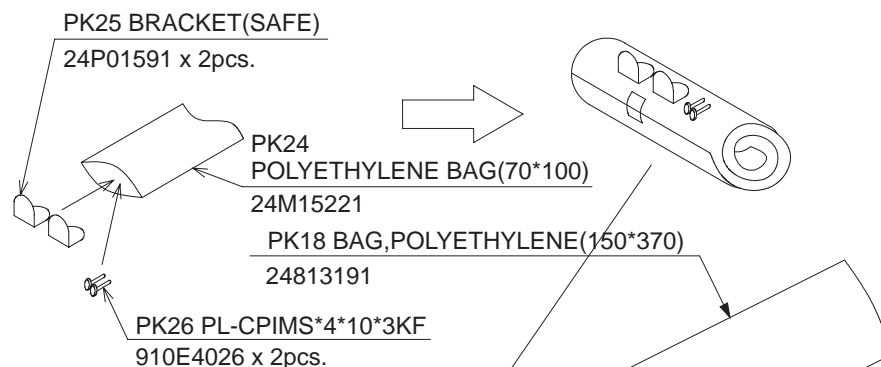
Stick the model name labels (29L05951) to both right and left sides shown in the diagram below. Stick the barcode serial label (16761791) to the right side plane shown in the diagram below.



METHOD OF PACKAGING

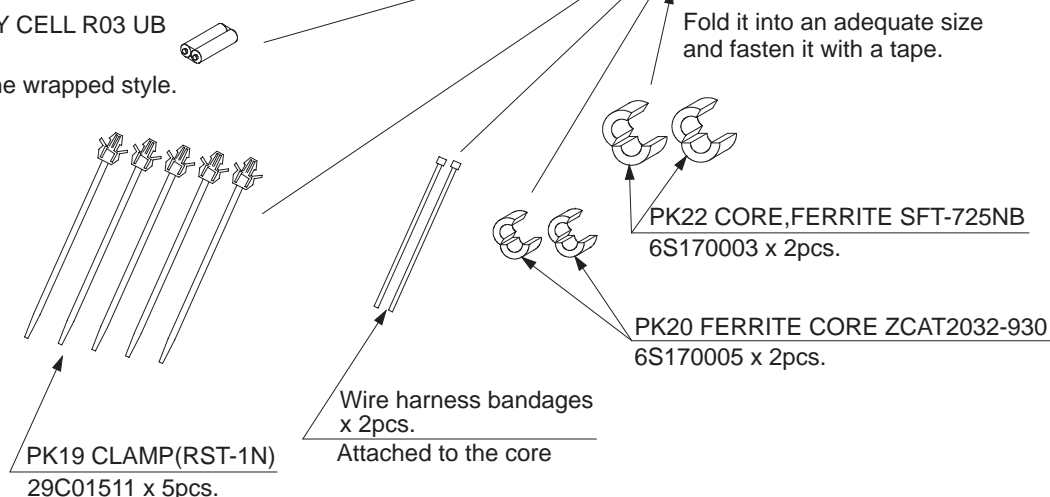
PX-50XR4A

A) BRACKET SASSY

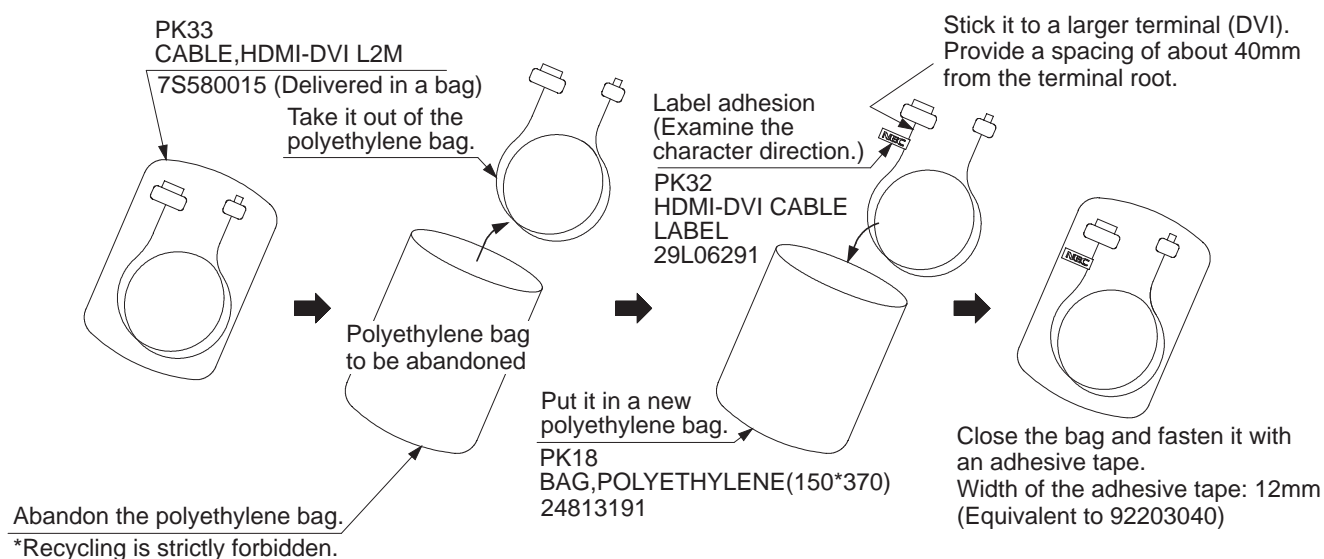


B) ACCESSORY SASSY

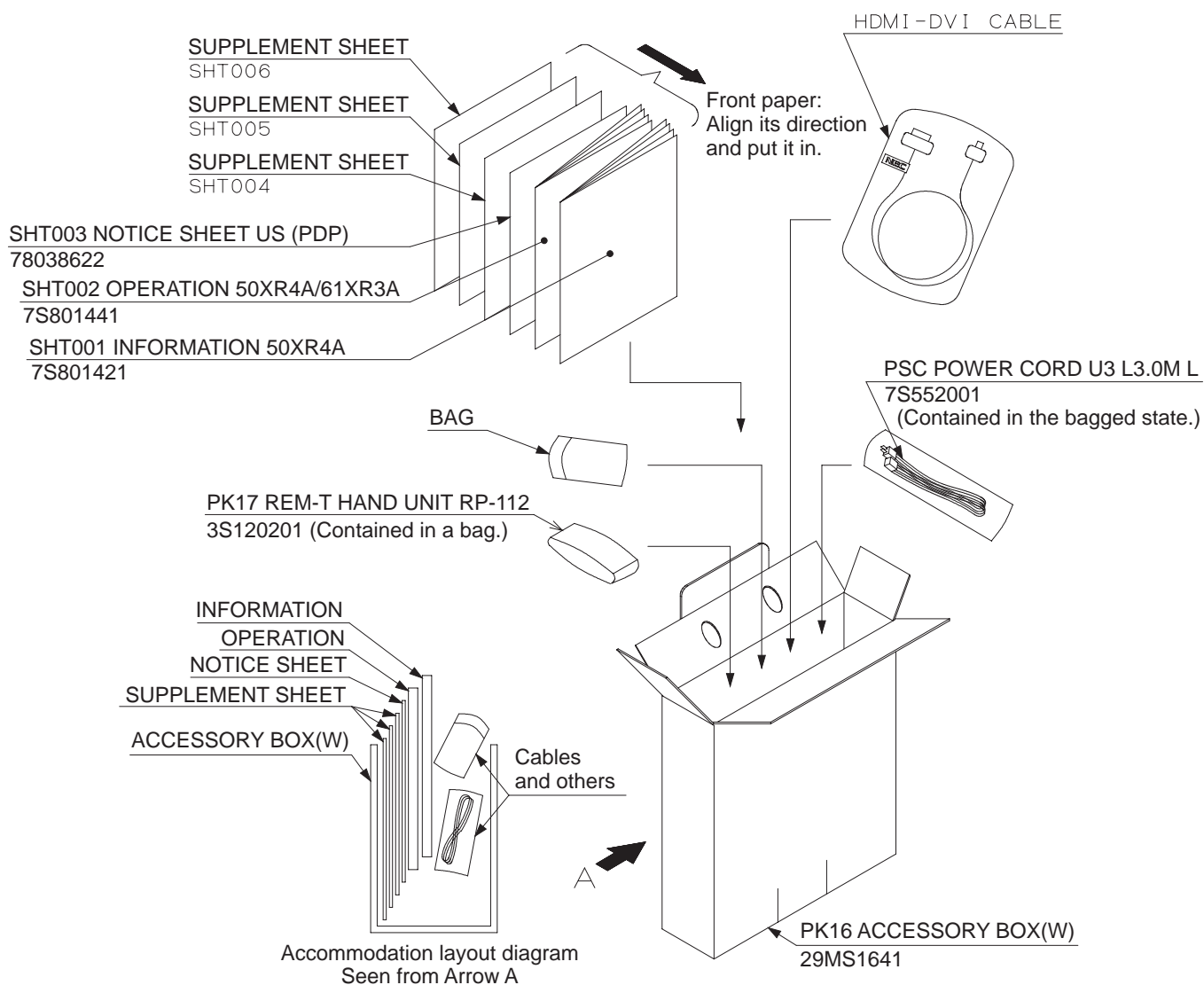
PK21 BATTERY, DRY CELL R03 UB
4S490003 x 2pcs.
Accommodated in the wrapped style.



C) HDMI-DVI CABLE

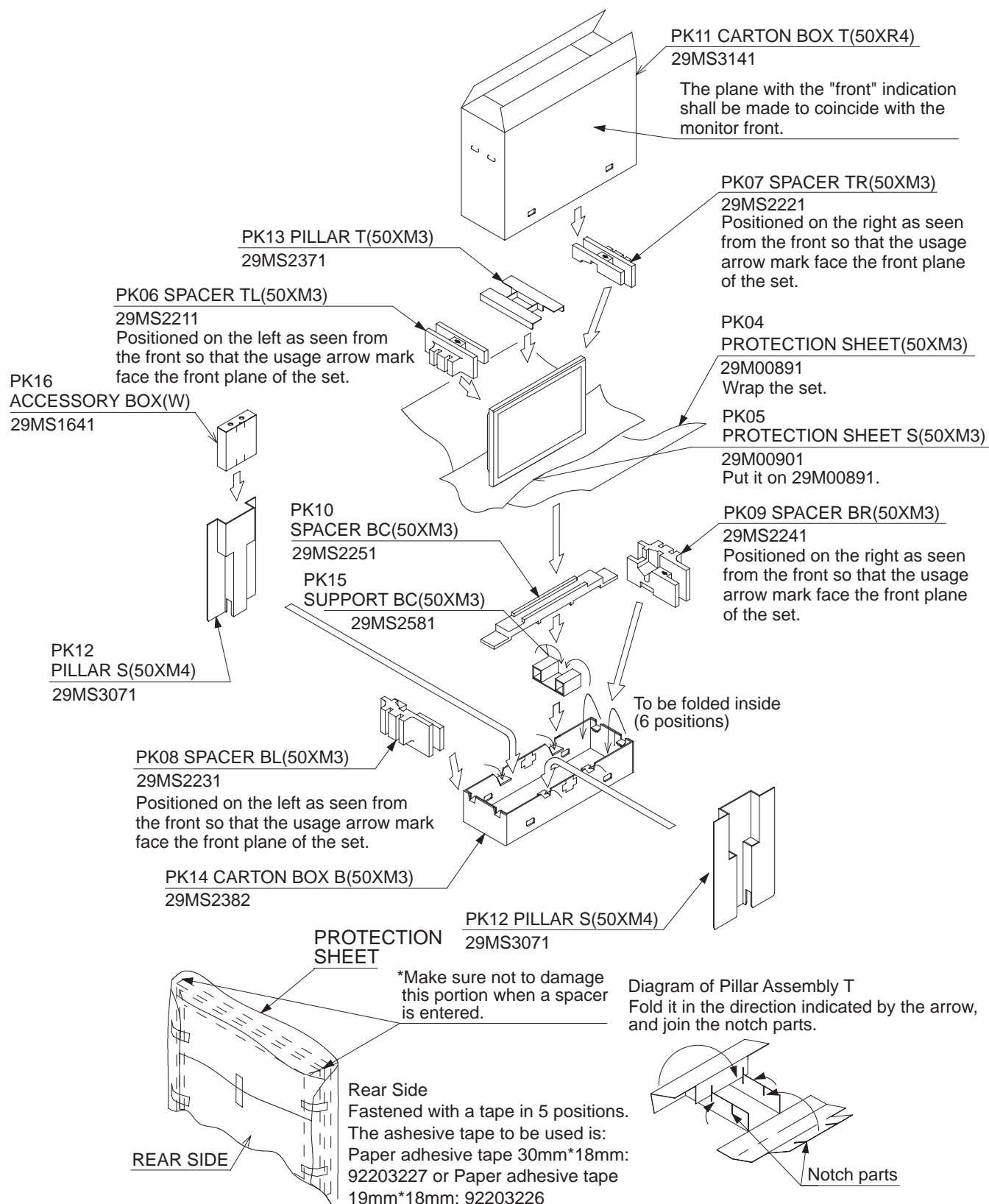


D) ACCESSORY BOX (W)



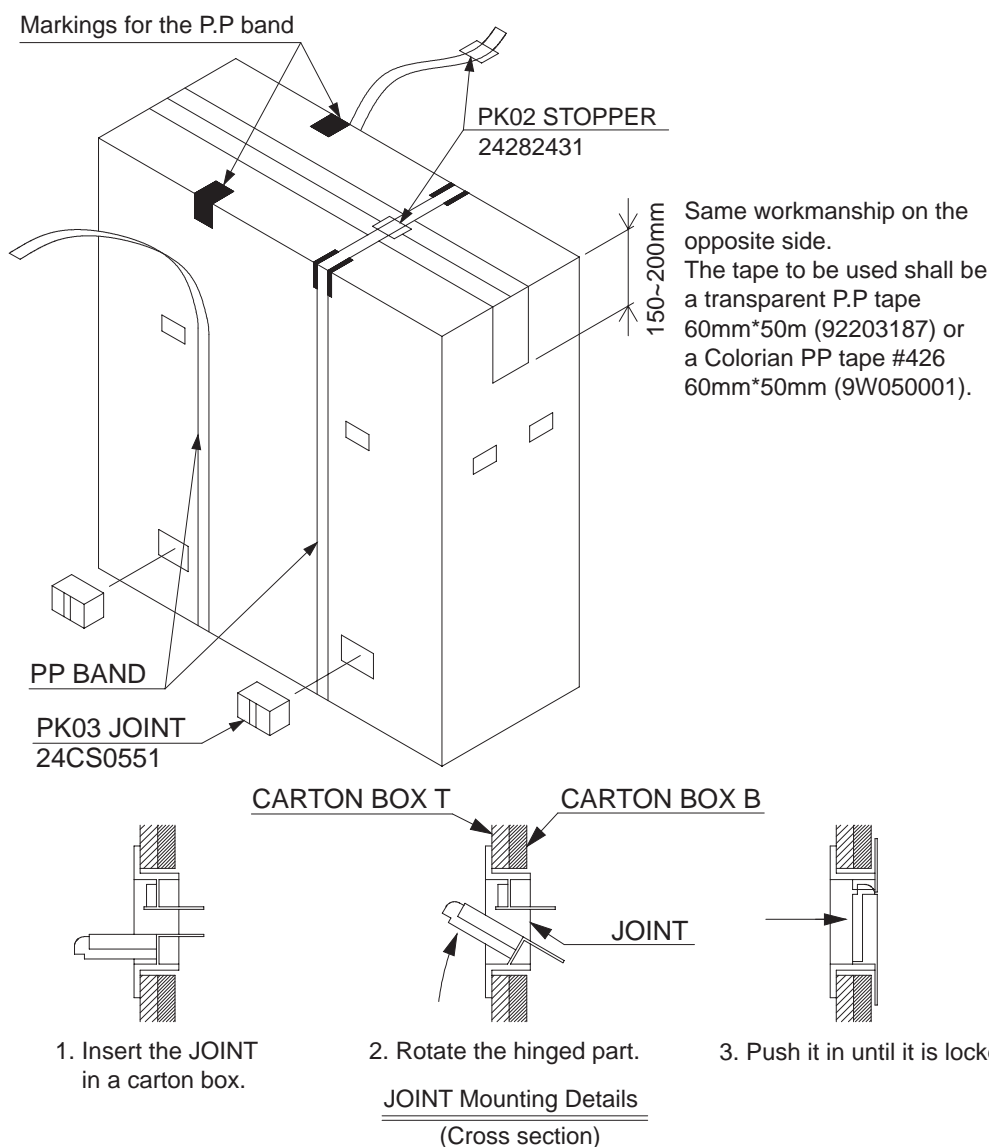
Name Titled	Circuit Symbol	Material Name	Material Code	Quantity Needed
POWER CORD	PSC	POWER CORD U3 L3.0M L	7S552001	1
	PSC	POWER CORD U3 L3.0M L	7S552004	or 0
INFORMATION	SHT001	INFORMATION 50XR4A	7S801421	1
OPERATION	SHT002	OPERATION 50XR4A/61XR3A	7S801441	1
NOTICE SHEET	SHT003	NOTICE SHEET US (PDP)	78038622	1
SUPPLEMENT SHEET	SHT004	Nil	Nil	Nil
	SHT005	Nil	Nil	Nil
	SHT006	Nil	Nil	Nil

E) SPACER, PILLAR, CARTON BOX



F) JOINT, PP BAND, STOPPER

To be locked by inserting the joints (24CS0551) in 4 positions.
Hang the P.P band based on the marking printed on the carton box edge line and fasten it with a stopper (P.P band) (24282431).



G) BAR CORD SERIAL LABEL

The required items shall be printed on the barcode serial label (16761791).
Detailed contents of printing shall conform to the diagram below.



Detailed Contents of Printing for the BARCODE SERIAL LABEL

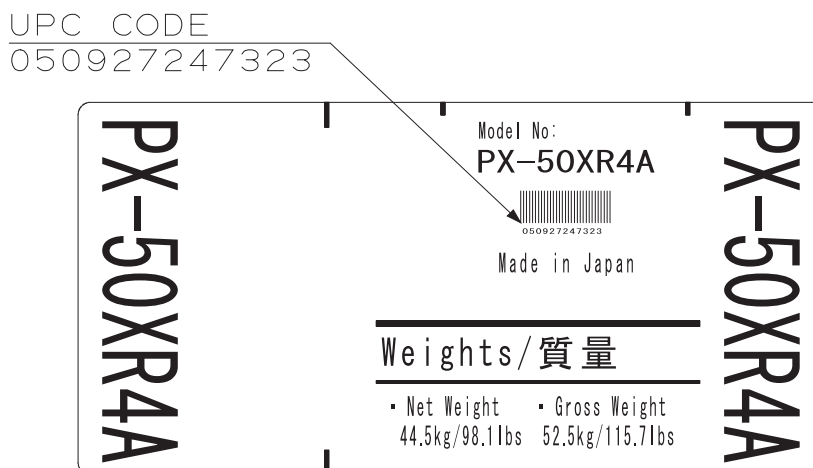
Upper stage: Print a barcode with the same contents as those of the middle stage.

Middle stage: To be printed out in the order of asterisk, merchandise code (in 8 digits), 3 spaces, serial number (in 9 digits), and asterisk. The merchandise code is "01272299". The serial number shall be the same as the one that is printed on the serial label (24L44731) of the set main body.

Lower stage: Print out Model No. "PX-50XR4A".

H) MODEL NAME LABEL

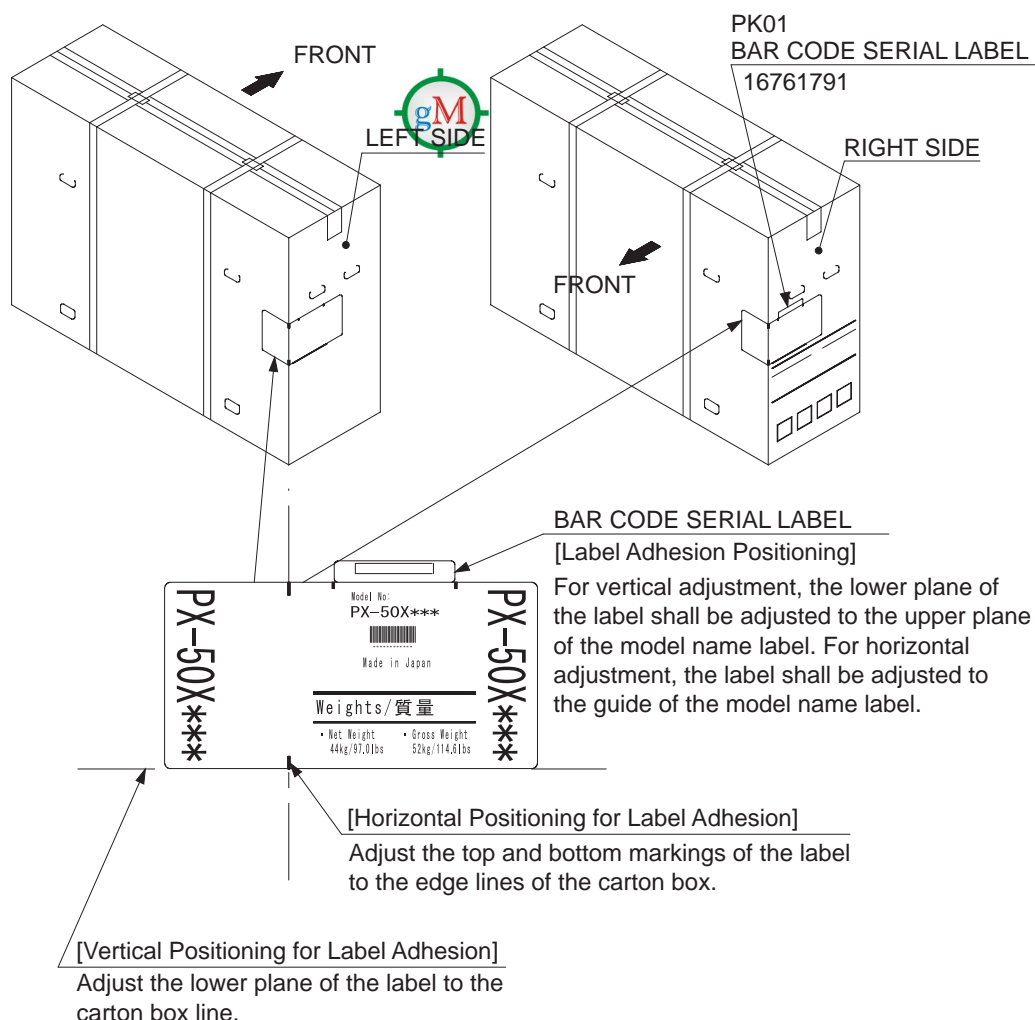
Print out the model name, the POS code, weight, etc., on the model name label (29L05951). Detailed contents shall conform to the diagram below. In regard to the size, character height, line boldness, and font, refer to the model name label (61XM3G) (29L06491).



Detailed Contents of Printing for the MODEL NAME LABEL

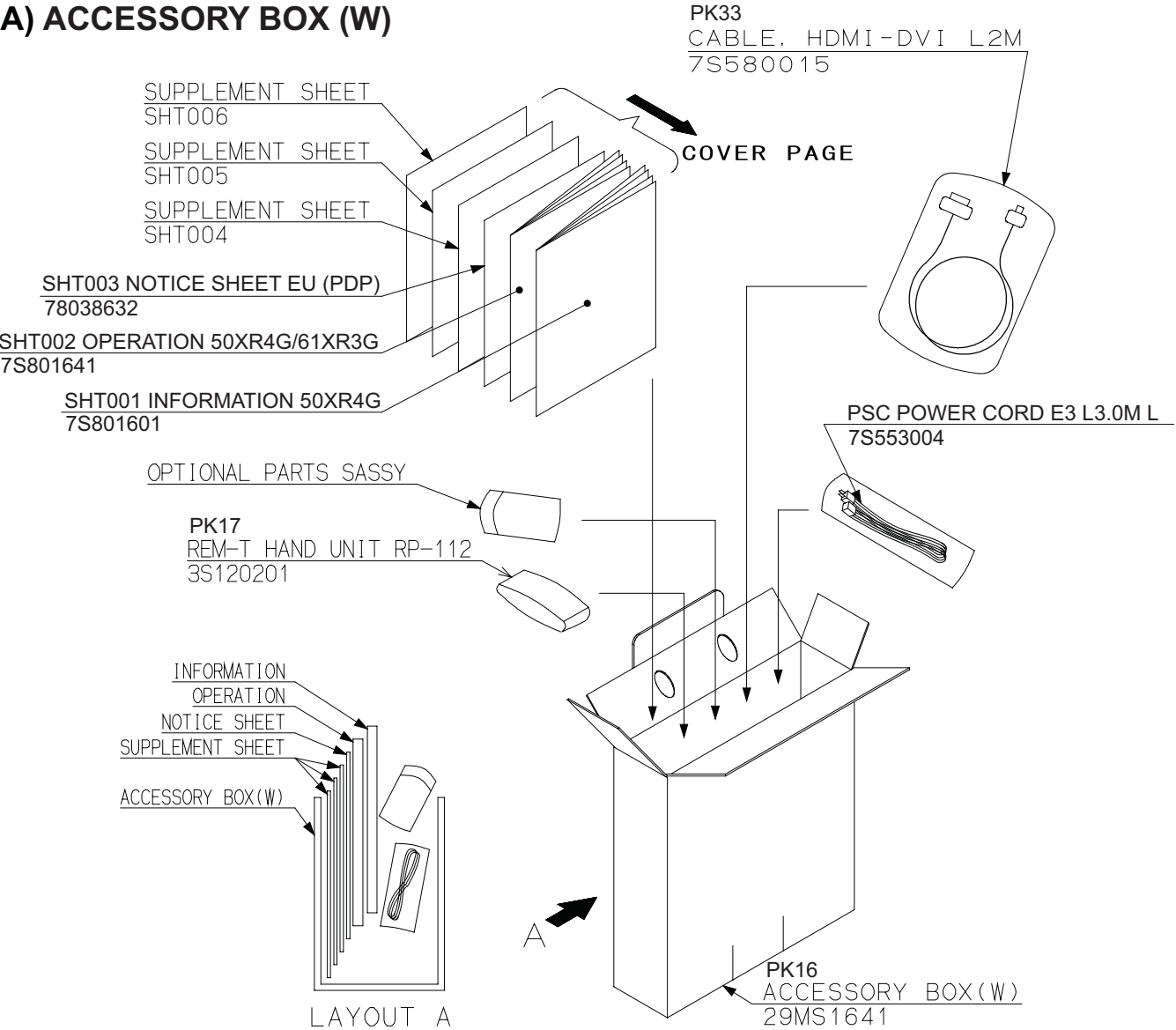
I) Adhesion of the MODEL NAME LABEL and BAR CODE SERIAL LABEL

Stick the model name labels (29L05951) to both right and left sides shown in the diagram below. Stick the barcode serial label (16761791) to the right side plane shown in the diagram below.



METHOD OF PACKAGING

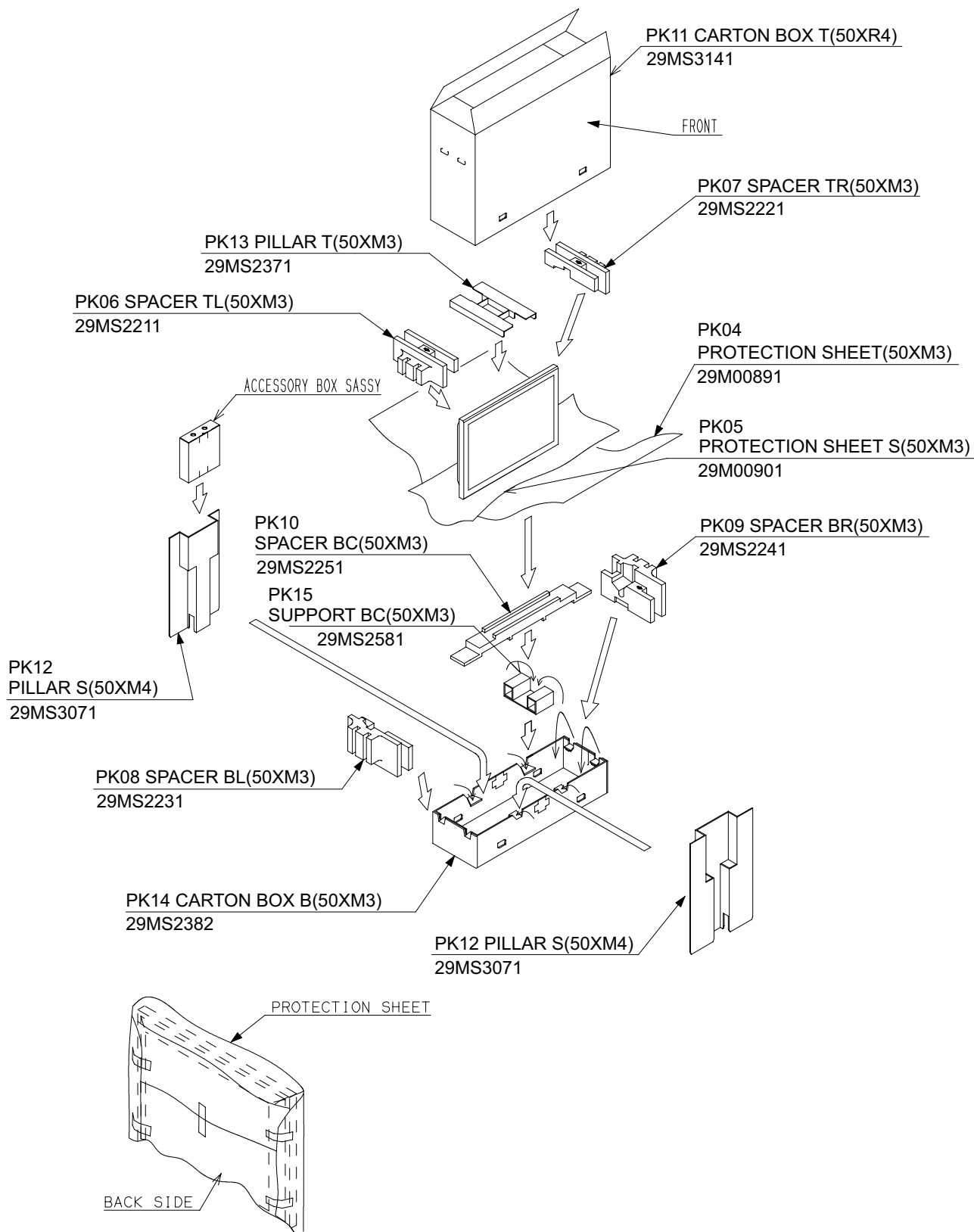
PX-50XR4G
A) ACCESSORY BOX (W)



NOTATION NAME	CIRCUIT SIGN	MATERIALS NAME	MATERIALS CODE	QUANTITY
POWER CORD	PSC	POWER CORD E3 L3.0M L	7S553004	1
INFORMATION	SHT001	INFORMATION 50XR4G	7S801601	1
OPERATION	SHT002	OPERATION 50XR4G/61XR3G	7S801641	1
NOTICE SHEET	SHT003	NOTICE SHEET EU(PDP)	78038632	1
SUPPLEMENT SHEET	SHT004	NOTHING	NOTHING	NOTHING
	SHT005	NOTHING	NOTHING	NOTHING
	SHT006	NOTHING	NOTHING	NOTHING

B) SPACER, PILLAR, CARTON BOX

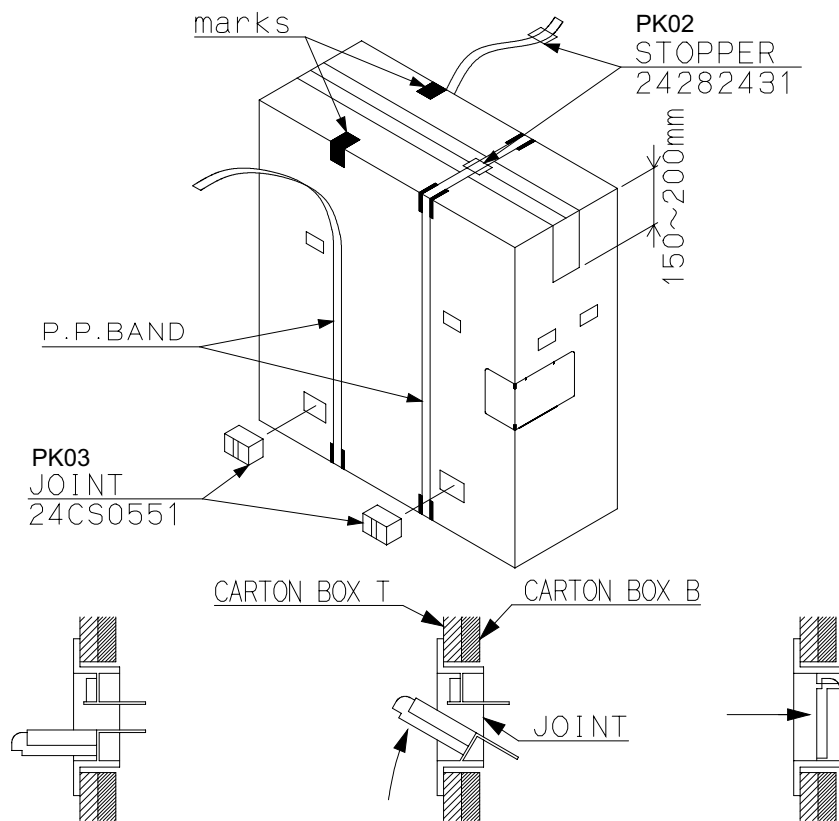
CONFIDENTIAL



C) JOINT, STOPPER

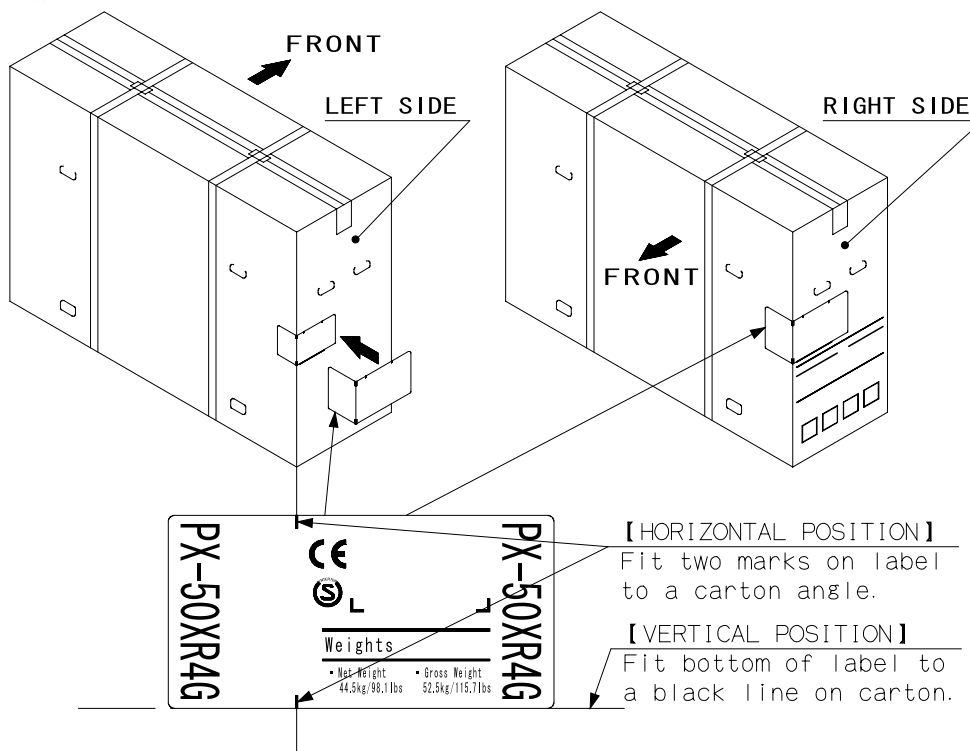
CONFIDENTIAL

Fasten CARTON BOX T to CARTON BOX B with four JOINTS(24CS0551).
Fasten up two P.P.BANDS on printed black marks with two STOPPERS(24282431).



D) MODEL NAME LABEL

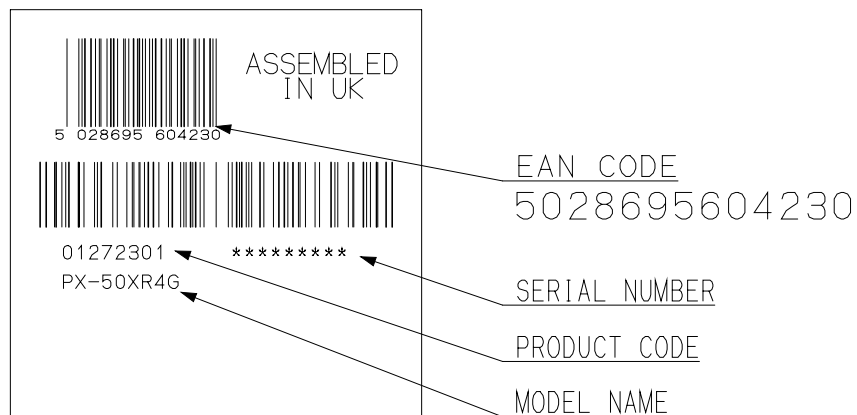
Apply MODEL NAME LABEL(50XR4G)(29L06821) to two angles of CARTON BOX T.



E) ASSEMBLED IN UK LABEL DETAIL

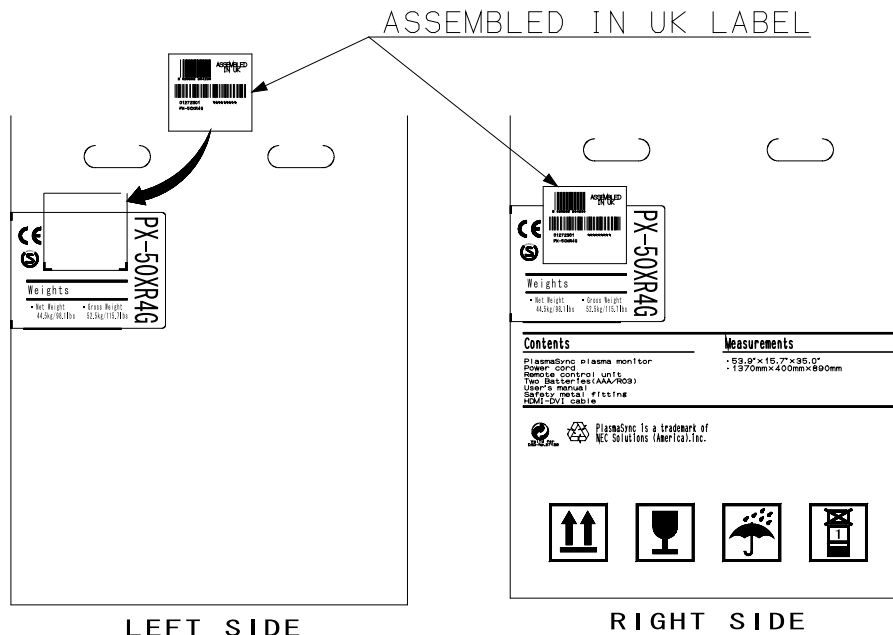
CONFIDENTIAL

Print EAN CODE, SERIAL NUMBER, PRODUCT CODE and MODEL NAME.
See below figure.



F) ASSEMBLED IN UK LABEL APPLYING

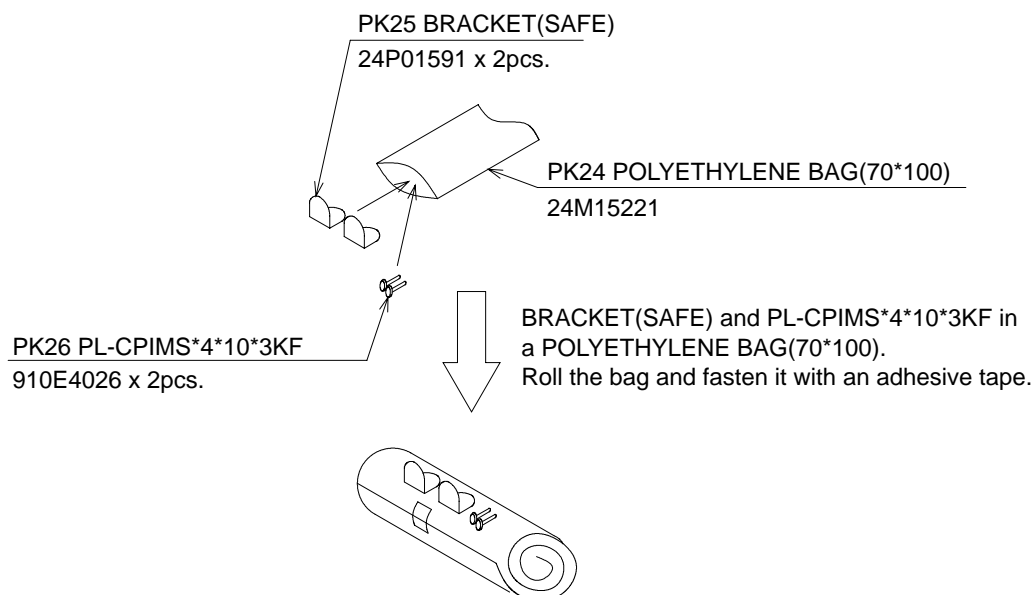
Apply ASSEMBLED IN UK LABEL
to position shown below.



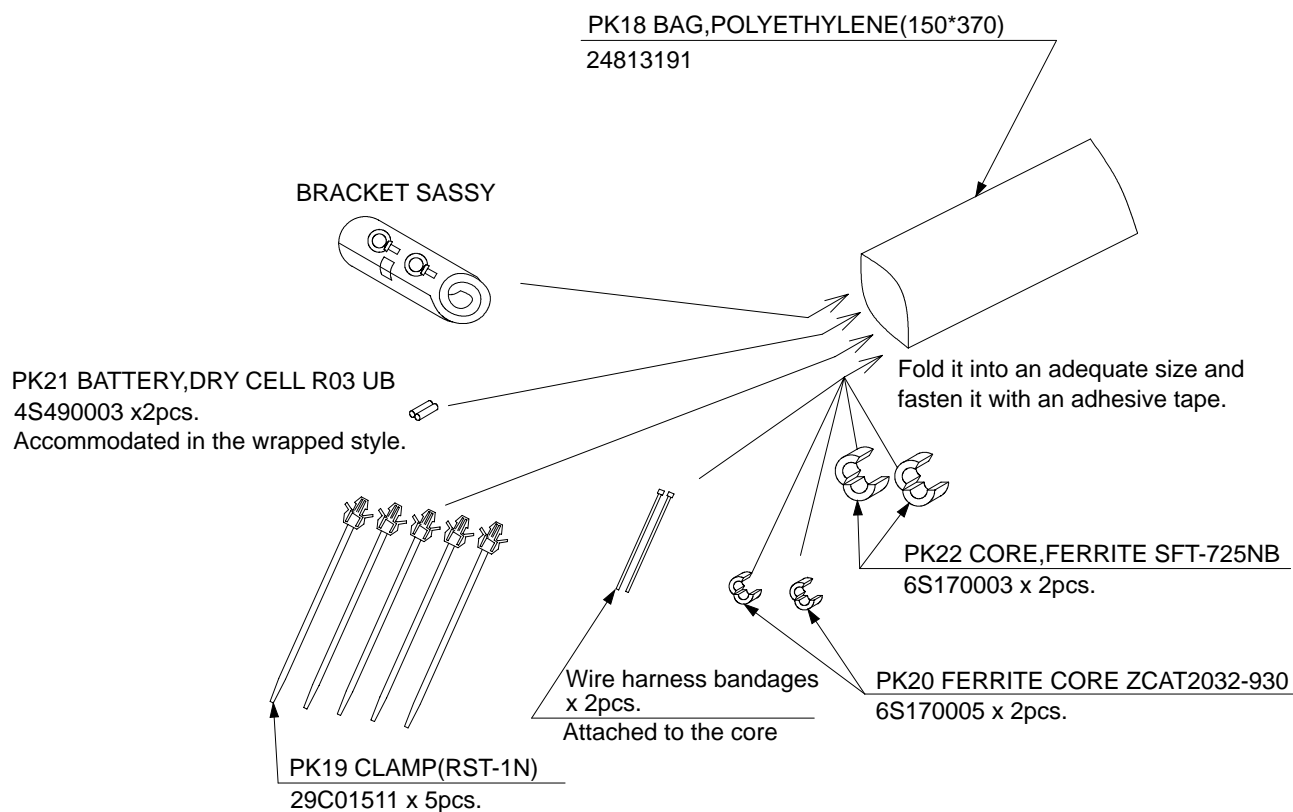
METHOD OF PACKAGING

PX-50XR4W

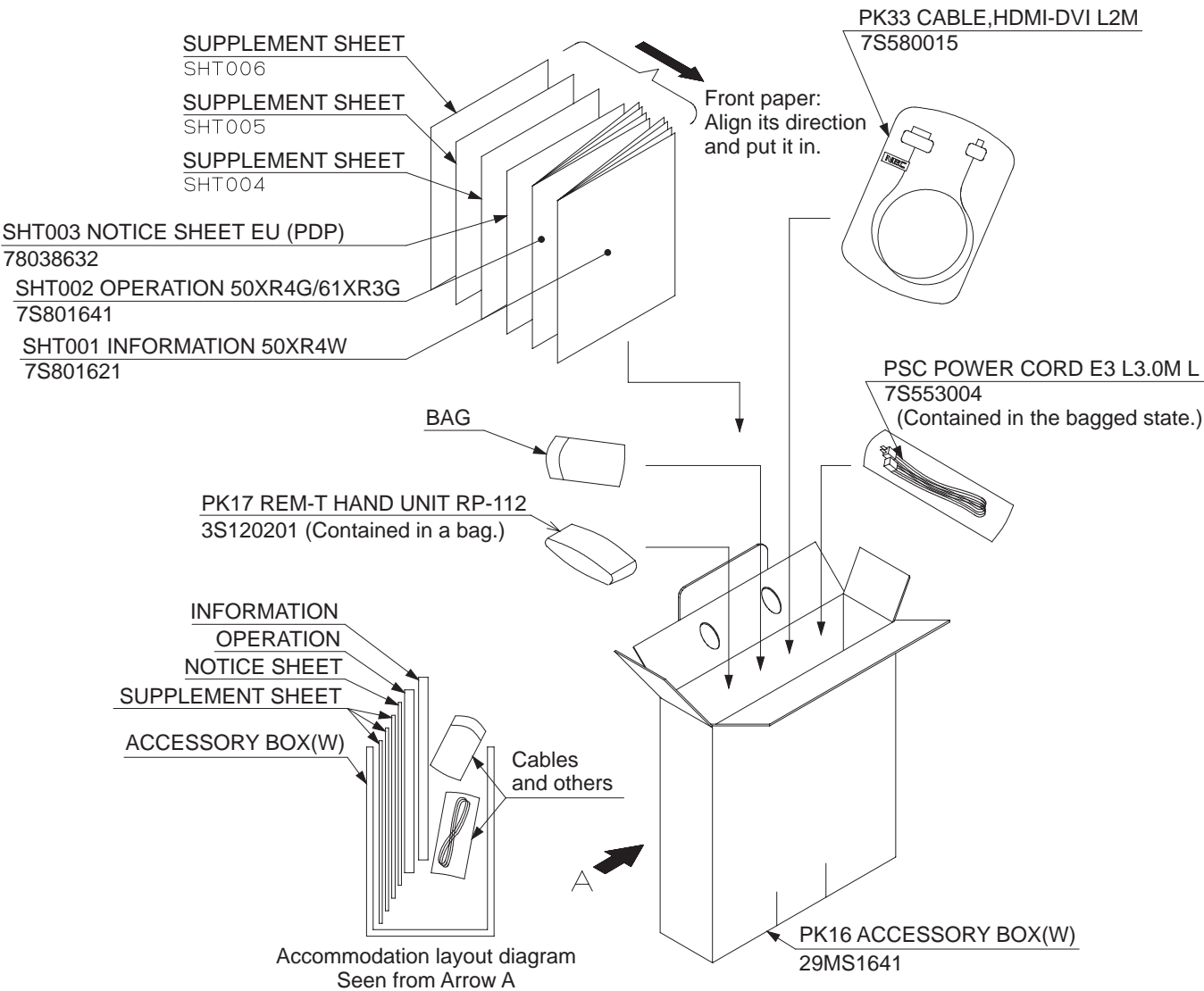
A) BRACKET SASSY



B) ACCESSORY SASSY

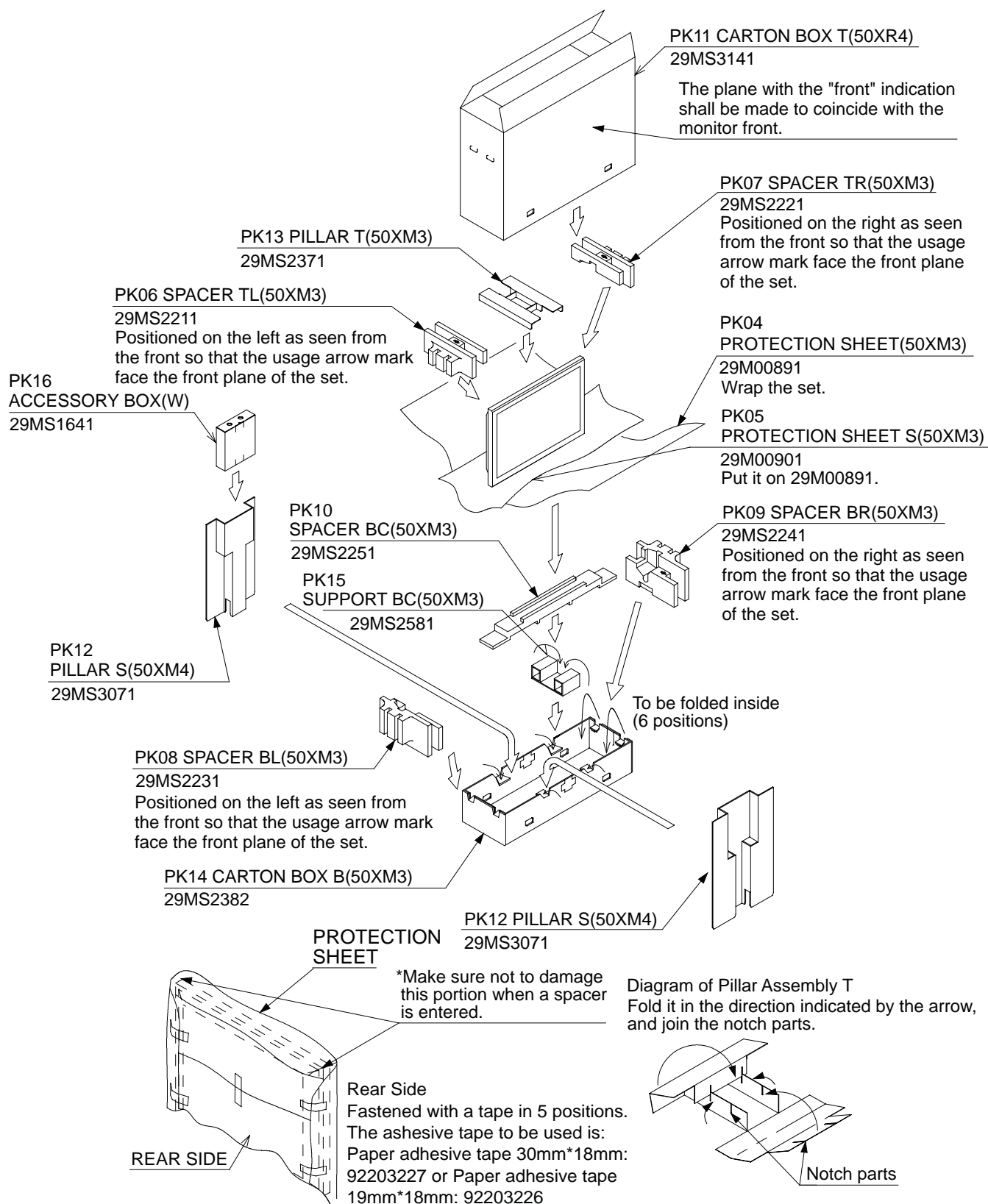


C) ACCESSORY BOX (W)



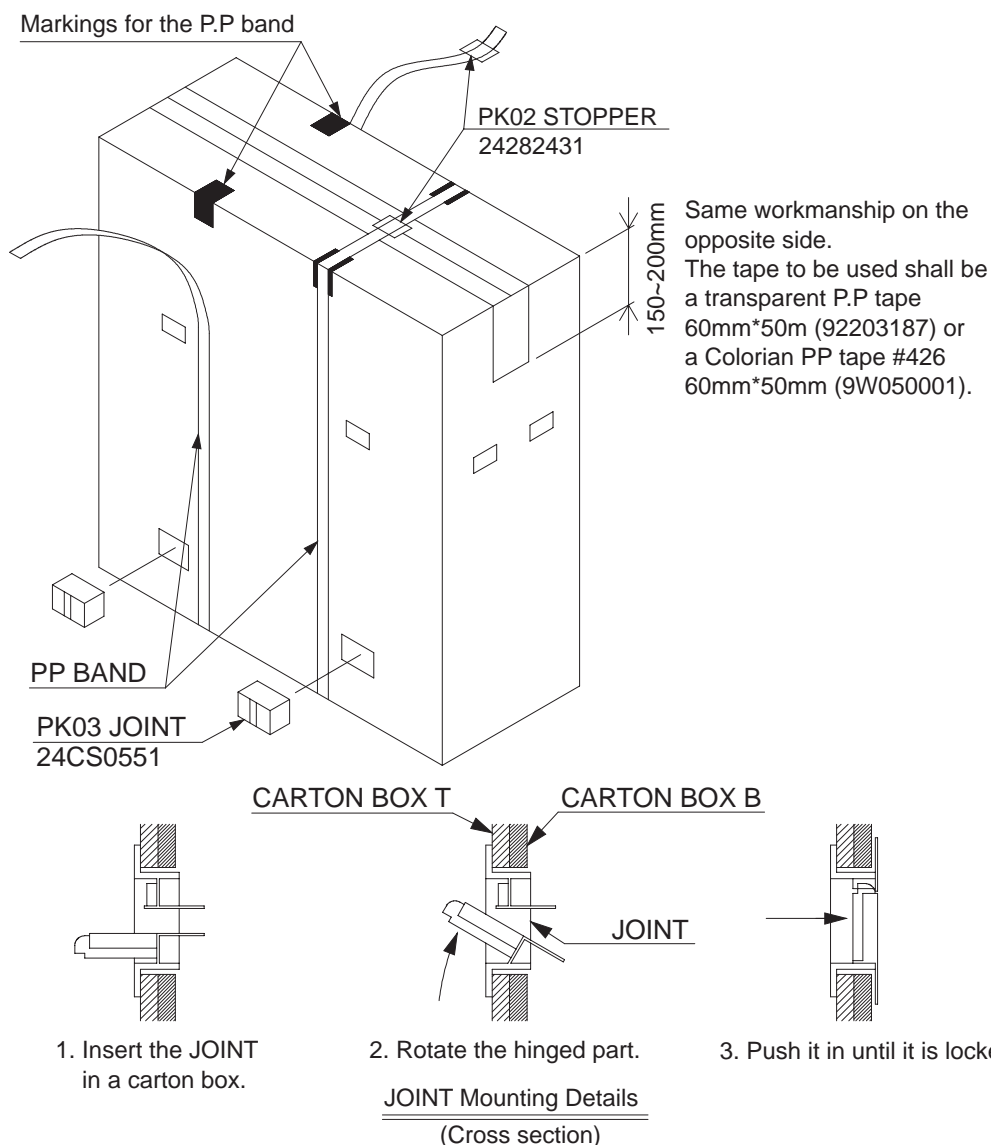
Name Titled	Circuit Symbol	Material Name	Material Code	Quantity Needed
POWER CORD	PSC	POWER CORD E3 L3.0M L	7S553004	1
INFORMATION	SHT001	INFORMATION 50XR4W	7S801621	1
OPERATION	SHT002	OPERATION 50XR4G/61XR3G	7S801641	1
NOTICE SHEET	SHT003	NOTICE SHEET EU (PDP)	78038632	1
SUPPLEMENT SHEET	SHT004	Nil	Nil	Nil
	SHT005	Nil	Nil	Nil
	SHT006	Nil	Nil	Nil

D) SPACER, PILLAR, CARTON BOX



E) JOINT, PP BAND, STOPPER

To be locked by inserting the joints (24CS0551) in 4 positions.
Hang the P.P band based on the marking printed on the carton box edge line and fasten it with a stopper (P.P band) (24282431).



F) BAR CORD SERIAL LABEL

The required items shall be printed on the barcode serial label (16761791).
Detailed contents of printing shall conform to the diagram below.



Detailed Contents of Printing for the BARCODE SERIAL LABEL

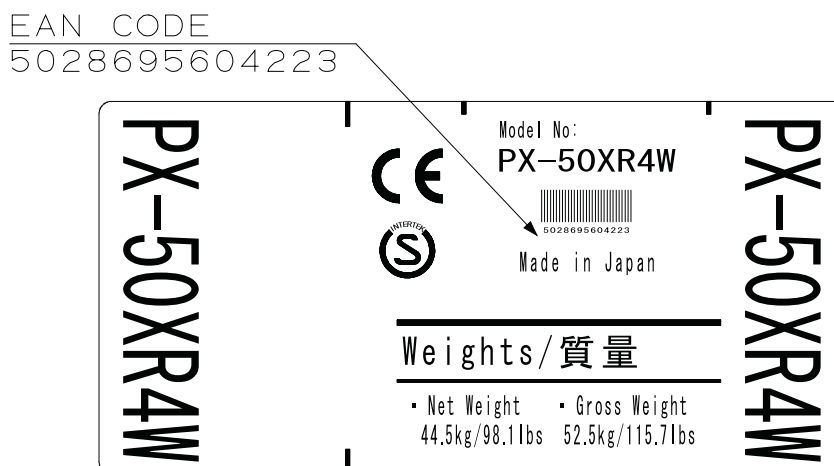
Upper stage: Print a barcode with the same contents as those of the middle stage.

Middle stage: To be printed out in the order of asterisk, merchandise code (in 8 digits), 3 spaces, serial number (in 9 digits), and asterisk. The merchandise code is "01272300". The serial number shall be the same as the one that is printed on the serial label (24L44731) of the set main body.

Lower stage: Print out Model No. "PX-50XR4W".

G) MODEL NAME LABEL

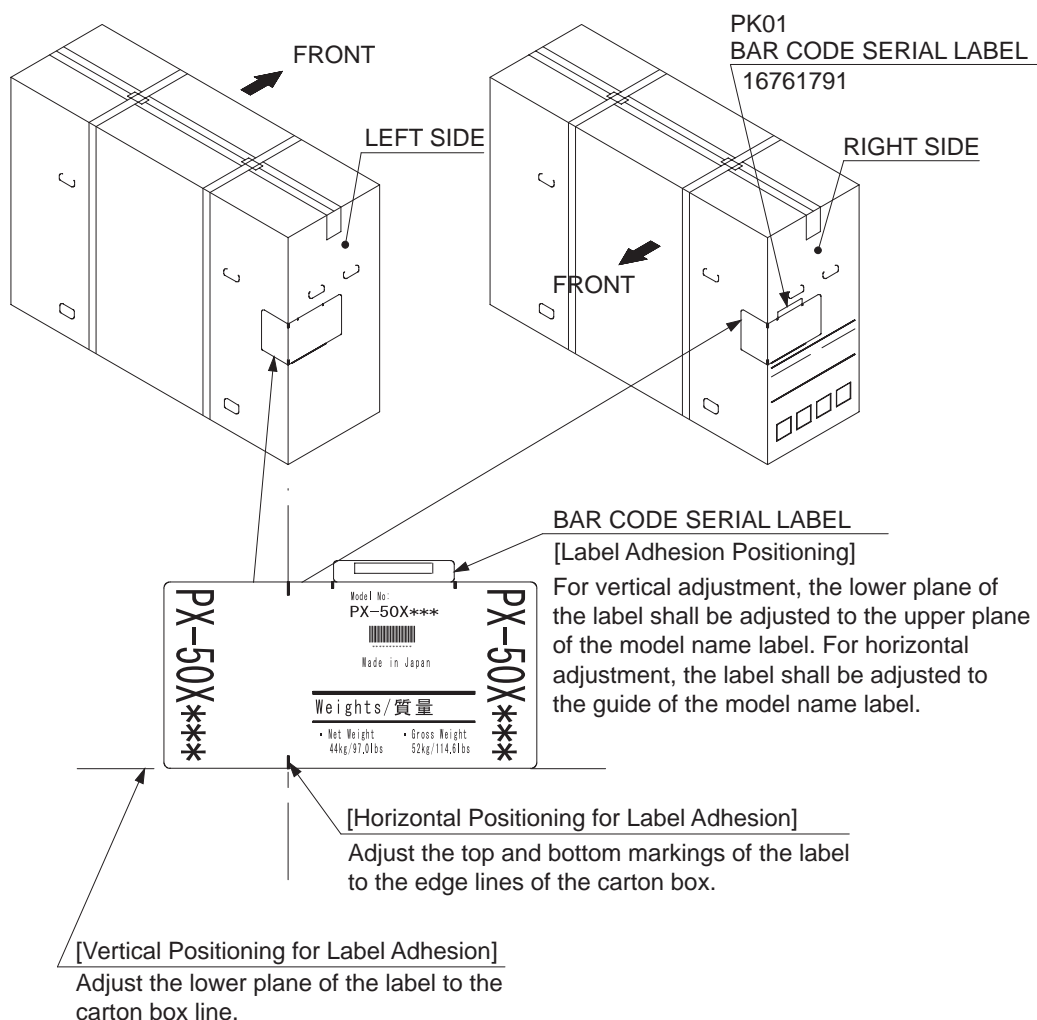
Print out the model name, the POS code, weight, etc., on the model name label (29L05951). Detailed contents shall conform to the diagram below. In regard to the size, character height, line boldness, and font, refer to the model name label (61XM3G) (29L06491).



Detailed Contents of Printing for the MODEL NAME LABEL

H) Adhesion of the MODEL NAME LABEL and BAR CODE SERIAL LABEL

Stick the model name labels (29L05951) to both right and left sides shown in the diagram below. Stick the barcode serial label (16761791) to the right side plane shown in the diagram below.



PARTS LIST

Notes:

1. Parts orders must contain model name, parts number and parts name.
2. When you place an order for spare parts, please refer to the respective service manual and mention the right parts number on your P.O. sheets
3. The letters NSP in the table indicate non-service parts.
4. Please refer to METHOD OF DISASSEMBLY or PACKAGING of service manual about a parts layout.

PX-50XM4A(01272276)

VER.59

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
*** PDP MODULE ***				
PDP	PDP-NP50X6MF01	3S350006	1	
*** PWB ASSYS ***				
A01	MAIN PWB ASSY	937F6M01	1	
A02	232C PWB ASSY	937F7SA1	1	
A03	CTL PWB ASSY	937F7SB1	1	
A04	PWR PWB ASSY	937F7SC1	1	
A05	LED PWB ASSY	937F7SD1	1	
A06	SENB PWB ASSY	937F7SE1	1	
A07	SENC PWB ASSY	937F7SF1	1	
A08	SEND PWB ASSY	937F7SG1	1	
A09	AUDIO PWB ASSY	937F7SH1	1	
A10	CCD PWB ASSY	937F6C01	1	
PSU	POWER UNIT	3S110174	1	
*** MISCELLANEOUS ELECTRICAL PARTS ***				
E01	FAN MOTOR 9G1212M4D03	3S170014	2	
E02	AC INLET 10GEEG3C	6S760013	1	
GND	CABLE 1P L360	7S530015	1	
CN-PI	CABLE 2P L265 ESD-R-19	7S530035	1	
FL30	CORE,FERRITE SFT-72SNB	6S170003	1	
FL32	FERRITE CORE ESD-R-19	6S170007	1	
CN-AD	CABLE 31P L390	7S530036	1	
CN-AU	CN 7P(AU) 1060W,2791-28	7SW7W002	1	
CN-LD	CN 5P(LD) 175,2468-26	7SU507LD	1	
CN-PA	CN 6P(PA) 600,2468-26	7SU624PA	1	
CN-PD	CN 10P(PD) 620W,1007-20	7SW0W012	1	
CN-PH	CN 4P(PH) 640W,1007-20	7SW4W014	1	
CN-PM	CN 7P(PM) 425,2468-26	7SU717PM	1	
CN-PN	CN 12P(PN) 500,2468-26	7SUB20PN	1	
CN-PV	CN 8P(PV) 425,2468-26	7SU817PV	1	
CN-PW	CN 8P(PW) 250,2468-26	7SC810PW	1	
CN-RS	CN 12P(RS) 200,2468-26	7SCB08RS	1	
CN-SW1	CN 3P(SW) 325W,2468-26	7SB3W006	1	
CN-SW2	CN 3P(SW) 1150W,2468-26	7SW3W008	1	
CN-TM	CN 4P(TM) 525,2468-26	7SC421TM	1	
CN-TR	CN 4P(TR) 650,2468-26	7SC426TR	1	
CN-TS	CN 4P(TS) 1075,2468-26	7SC443TS	1	
FL11	CORE,FERRITE SFT-72SNB	6S170003	1	
FL12	CORE,FERRITE SFT-72SNB	6S170003	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
FL13	CORE,FERRITE SFT-72SNB	6S170003	1	NOT USED NOT USED
FL21	FERRITE CORE ZCAT2032-930	6S170005	1	
FL22				
FL23				
FL24	FERRITE CORE ZCAT2032-930	6S170005	1	
FL25	FERRITE CORE ZCAT2032-930	6S170005	1	
FL26	FERRITE CORE ZCAT2032-930	6S170005	1	
FL27	FERRITE CORE ZCAT2032-930	6S170005	1	
FL31	FERRITE CORE ZCAT2032-930	6S170005	1	
FL33				
FL34				NOT USED
FL35				NOT USED
*** MECHANICAL PARTS ***				
SRW01	CBIPS*3*8*3KF	24N03691	2	NOT USED
SRW02	CBIPS*4*12*15KFE	29N01401	6	
SRW03	CBIPS*4*8*3KF	29N00521	20	
SRW04	PL-CPIMS*4*12*15KFE	29N01441	3	
SRW05	CBIPS*5*20*3GF	29N01511	6	
SRW06	CBIPS*4*12*15KFE	29N01401	10	
SRW07	CBIPS*4*12*15KFE	29N01401	11	
SRW08	CBIPS*4*12*15KFE	29N01401	8	
SRW09	CBIPS*4*12*15KFE	29N01401	1	
SRW10	CBIPS*4*12*15KFE	29N01401	8	
SRW11	CBIPS*4*12*15KFE	29N01401	7	
SRW12	CBIPS*4*12*15KFE	29N01401	2	
SRW13	CBIPS*4*12*15KFE	29N01401	2	
SRW14	PL-CPIMS*4*12*15KFE	29N01441	6	
SRW15	CBIPS*3*8*3KF	24N03691	7	
SRW16	SCREW(UNC4-40/4-40)	32990229	4	
SRW17	SCREW(UNC4-40/4-40)	32990229	2	
SRW18	TP-M3*6*3KF	24N04581	5	
SRW19				
SRW20	CBIPS*4*12*15KFE	29N01401	3	
SRW21	TP-M3*6*3KF	24N04581	1	
SRW22	CBIPS*4*12*15KFE	29N01401	1	
SRW23	TP-M3*6*3KF	24N04581	2	
SRW24	SCREW PL-CPIMS*3*10*15KFE	29N01431	2	
SRW25	CBIPS*3*8*3KF	24N03691	2	
SRW26	TP-M3*6*3KF	24N04581	4	
SRW27	TP-M3*6*3KF	24N04581	3	
SRW28	ET-CBIMS*4*8*3KF	24N04001	1	
SRW29	CBIPS*4*12*15KFE	29N01401	3	
SRW30	CBIPS*4*12*15KFE	29N01401	8	
SRW31	CBIPS*4*12*15KFE	29N01401	31	
SRW32	SCREW PL-CPIMS*3*10*15KFE	29N01431	9	
SRW33	CBIPS*5*16*15KFE	29N01411	4	
SRW34	TP-M3*6*3KF	24N04581	1	
GSK01				NOT USED
GSK02				NOT USED
GSK03				NOT USED
GSK04				NOT USED

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
GSK05	SHIELDING SHEET(300*4)	29C01641	1	NOT USED
BRR01	BARRIER PS(50XM4)	29J01281	1	
BRR02	BARRIER PS(50XM4)	29J01281	1	
M01	CLAMPER,WIRE(D11.5)	24281251	1	
M02	SERIAL LABEL	24L44731	1	
M03				
M04	EDGING SADDLE(EDS-1208U)	29C00461	5	
M05	SHIELDING TAPE AL(25*50M)	29C01911	1roll	
M06	CLAMP(MWC-2S)	29C01401	16	
M07	CLAMP(WS-2W-V0)	29C01421	16	
M08	LUG(L60)	29C01471	2	3500mm/SET
M09	FRONT PANEL(50XM3)	29D00554	1	
M10	SUB FRONT(50XM3)	29D00563	1	
M11	FRAME(50XM3)	29D00574	1	
M12	BUTTON COVER(50XM3)	29F00551	1	
M13	POWER BUTTON COVER(50XM3)	29F00561	1	
M14	HANDLE	29F00591	2	
M15	POWER BUTTON(50XM3)	29G00281	1	
M16	CONTROL BUTTON(50XM3)	29G00291	1	
M17	SHIELD PLATE MAIN(42XM3)	29H03541	1	
M18	BRACKET FILTER L(50XM3)	29H02461	1	
M19	BRACKET FILTER T(50XM3)	29H02471	1	
M20	BRACKET FILTER B(50XM3)	29H02481	1	
M21	PWB BASE MAIN(50XM4)	29H03461	1	
M22	PWB BASE SUB(50XM4)	29H03471	1	
M23	PS BRACKET(50XM3)	29H02512	1	
M24	SHIELD BOTTOM(50XM4)	29H03481	1	
M25	SHIELD CENTER	29H02532	1	
M26	SHIELD MAIN(50XM4)	29H03671	1	
M27	TERMINAL PANEL M(50XM3)	29H02551	1	
M28	TERMINAL PANEL S(50XM3)	29H02561	1	
M29	TERMINAL PANEL B(50XM3)	29H02571	1	
M30	PLANE R(50XM3)	29H02582	1	
M31	PLANE L(50XM3)	29H02592	1	
M32	STAND BRKT(50XM3)	29H02602	2	
M33				
M34	GS COVER	29H02782	1	
M35	BRACKET FILTER R(50XM3)	29H02821	1	
M36				
M37	CUSHION(580*10*T4.0)	29J01012	4	
M38	CUSHION(654*10*T4.0)	29J01022	2	
M39				
M40	SILICONE SHEET(AUDIO)T	29J01291	1	NOT USED
M41	FILTER(50A)	29KS0151	1	
M42	INDICATOR(50XM3)	29K00421	1	
M43	TERMINAL SHEET M(50XM3)W	29K00571	1	
M44	TERMINAL SHEET S(50XM3)W	29K00581	1	
M45	TERMINAL SHEET B(50XM3)	29K00461	1	
M46	AC IN LABEL	29L00491	1	
M47	NAME PLATE(50XM4A)	29L05701	1	
M48	SPEAKER LABEL	29L03552	1	
M49				
M50	BACK COVER(50XM4)	29P01391	1	NOT USED

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M51	BARRIER(INLET)	24J15941	1	NOT USED NOT USED NOT USED NOT USED NOT USED
M52				
M53				
M54				
M55				
M56	MD SPACER(50XM4) AUDIO HEAT SINK	29F01071 29H03561	6 1	
M57				
M58				
*** PRINTED & PACKING MATERIALS ***				
SHT001	INFORMATION 50XM4A	7S801361	1	
SHT002	OPERATION 50XM4A/61XM3A	7S801381	1	
SHT003	NOTICE SHEET US (PDP)	78038622	1	
PSC	POWER CORD U3 L3.0M L	7S552001	1	
PK01	BAR CODE SERIAL LABE	16761791	1	
PK02	STOPPER	24282431	2	
PK03	JOINT	24CS0551	4	
PK04	PROTECTION SHEET(50XM3)	29M00891	1	
PK05	PROTECTION SHEET S(50XM3)	29M00901	1	
PK06	SPACER TL(50XM3)	29MS2211	1	
PK07	SPACER TR(50XM3)	29MS2221	1	
PK08	SPACER BL(50XM3)	29MS2231	1	
PK09	SPACER BR(50XM3)	29MS2241	1	
PK10	SPACER BC(50XM3)	29MS2251	1	
PK11	CARTON BOX T(50XM4)	29MS3131	1	
PK12	PILLAR S(50XM4)	29MS3071	2	
PK13	PILLAR T(50XM3)	29MS2371	1	
PK14	CARTON BOX B(50XM3)	29MS2382	1	
PK15	SUPPORT BC(50XM3)	29MS2581	1	
PK16	ACCESSORY BOX(W)	29MS1641	1	
PK17	REM-T HAND UNIT RP-114	3S120221	1	
PK18	BAG,POLYETHYLENE(150*370)	24813191	1	
PK19	CLAMP(RST-1N)	29C01511	5	
PK20	FERRITE CORE ZCAT2032-930	6S170005	2	
PK21	BATTERY, DRY CELL R03 UB	4S490003	2	
PK22	CORE, FERRITE SFT-725NB	6S170003	2	
PK23				NOT USED
PK24	POLYETHYLENE BAG(70*100)	24M15221	1	
PK25	BRACKET(SAFE)	24P01591	2	
PK26	PL-CPIMS*4*10*3KF	910E4026	2	
PK27				NOT USED
PK28				NOT USED
PK29	MODEL NAME LABEL	29L05951	2	NOT USED
PK30				

PARTS LIST

Notes:

1. Parts orders must contain model name, parts number and parts name.
2. When you place an order for spare parts, please refer to the respective service manual and mention the right parts number on your P.O. sheets
3. The letters NSP in the table indicate non-service parts.
4. Please refer to METHOD OF DISASSEMBLY or PACKAGING of service manual about a parts layout.

PX-50XM4G(01272278)

VER.50

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
*** PDP MODULE ***				
PDP	PDP-NP50X6MF01	3S350006	1	
*** PWB ASSYS ***				
A01	MAIN PWB ASSY	937F7M01	1	NOT USED
A02	232C PWB ASSY	937F7SA1	1	
A03	CTL PWB ASSY	937F7SB1	1	
A04	PWR PWB ASSY	937F7SC1	1	
A05	LED PWB ASSY	937F7SD1	1	
A06	SENB PWB ASSY	937F7SE1	1	
A07	SENC PWB ASSY	937F7SF1	1	
A08	SEND PWB ASSY	937F7SG1	1	
A09	AUDIO PWB ASSY	937F7SH1	1	
A10				
PSU	POWER UNIT	3S110174	1	
*** MISCELLANEOUS ELECTRICAL PARTS ***				
E01	FAN MOTOR 9G1212M4D03	3S170014	2	
E02	AC INLET 10GEEG3C	6S760013	1	
GND	CABLE 1P L360	7S530015	1	
CN-PI	CABLE 2P L265 ESD-R-19	7S530035	1	
FL30	CORE,FERRITE SFT-72SNB	6S170003	1	
FL32	FERRITE CORE ESD-R-19	6S170007	1	
CN-AD	CABLE 31P L390	7S530036	1	
CN-AU	CN 7P(AU) 1060W,2791-28	7SW7W002	1	
CN-LD	CN 5P(LD) 175,2468-26	7SU507LD	1	
CN-PA	CN 6P(PA) 600,2468-26	7SU624PA	1	
CN-PD	CN 10P(PD) 620W,1007-20	7SW0W012	1	
CN-PH	CN 4P(PH) 640W,1007-20	7SW4W014	1	
CN-PM	CN 7P(PM) 425,2468-26	7SU717PM	1	
CN-PN	CN 12P(PN) 500,2468-26	7SUB20PN	1	
CN-PV	CN 8P(PV) 425,2468-26	7SU817PV	1	
CN-PW	CN 8P(PW) 250,2468-26	7SC810PW	1	
CN-RS	CN 12P(RS) 200,2468-26	7SCB08RS	1	
CN-SW1	CN 3P(SW) 325W,2468-26	7SB3W006	1	
CN-SW2	CN 3P(SW) 1150W,2468-26	7SW3W008	1	
CN-TM	CN 4P(TM) 525,2468-26	7SC421TM	1	
CN-TR	CN 4P(TR) 650,2468-26	7SC426TR	1	
CN-TS	CN 4P(TS) 1075,2468-26	7SC443TS	1	
FL11	CORE,FERRITE SFT-72SNB	6S170003	1	
FL12	CORE,FERRITE SFT-72SNB	6S170003	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
FL13	CORE,FERRITE SFT-72SNB	6S170003	1	NOT USED NOT USED
FL21	FERRITE CORE ZCAT2032-930	6S170005	1	
FL22				
FL23				
FL24	FERRITE CORE ZCAT2032-930	6S170005	1	
FL25	FERRITE CORE ZCAT2032-930	6S170005	1	
FL26	FERRITE CORE ZCAT2032-930	6S170005	1	
FL27	FERRITE CORE ZCAT2032-930	6S170005	1	
FL31	FERRITE CORE ZCAT2032-930	6S170005	1	
FL33				
FL34				NOT USED
FL35				NOT USED
*** MECHANICAL PARTS ***				
SRW01	CBIPS*3*8*3KF	24N03691	2	NOT USED
SRW02	CBIPS*4*12*15KFE	29N01401	6	
SRW03	CBIPS*4*8*3KF	29N00521	20	
SRW04	PL-CPIMS*4*12*15KFE	29N01441	3	
SRW05	CBIPS*5*20*3GF	29N01511	6	
SRW06	CBIPS*4*12*15KFE	29N01401	10	
SRW07	CBIPS*4*12*15KFE	29N01401	11	
SRW08	CBIPS*4*12*15KFE	29N01401	8	
SRW09	CBIPS*4*12*15KFE	29N01401	1	
SRW10	CBIPS*4*12*15KFE	29N01401	8	
SRW11	CBIPS*4*12*15KFE	29N01401	7	
SRW12	CBIPS*4*12*15KFE	29N01401	2	
SRW13	CBIPS*4*12*15KFE	29N01401	2	
SRW14	PL-CPIMS*4*12*15KFE	29N01441	6	
SRW15	CBIPS*3*8*3KF	24N03691	7	
SRW16	SCREW(UNC4-40/4-40)	32990229	4	
SRW17	SCREW(UNC4-40/4-40)	32990229	2	
SRW18	TP-M3*6*3KF	24N04581	5	
SRW19				
SRW20	CBIPS*4*12*15KFE	29N01401	3	
SRW21	TP-M3*6*3KF	24N04581	1	
SRW22	CBIPS*4*12*15KFE	29N01401	1	
SRW23	TP-M3*6*3KF	24N04581	2	
SRW24	SCREW PL-CPIMS*3*10*15KFE	29N01431	2	
SRW25	CBIPS*3*8*3KF	24N03691	2	
SRW26	TP-M3*6*3KF	24N04581	4	
SRW27	TP-M3*6*3KF	24N04581	3	
SRW28	ET-CBIMS*4*8*3KF	24N04001	1	
SRW29	CBIPS*4*12*15KFE	29N01401	3	
SRW30	CBIPS*4*12*15KFE	29N01401	8	
SRW31	CBIPS*4*12*15KFE	29N01401	31	
SRW32	SCREW PL-CPIMS*3*10*15KFE	29N01431	9	
SRW33	CBIPS*5*16*15KFE	29N01411	4	
SRW34	TP-M3*6*3KF	24N04581	1	
GSK01				NOT USED
GSK02				NOT USED
GSK03				NOT USED
GSK04				NOT USED

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
GSK05	SHIELDING SHEET(300*4)	29C01641	1	NOT USED
BRR01	BARRIER PS(50XM4)	29J01281	1	
BRR02	BARRIER PS(50XM4)	29J01281	1	
M01	CLAMPER,WIRE(D11.5)	24281251	1	
M02	SERIAL LABEL	24L44731	1	
M03				
M04	EDGING SADDLE(EDS-1208U)	29C00461	5	
M05	SHIELDING TAPE AL(25*50M)	29C01911	1roll	
M06	CLAMP(MWC-2S)	29C01401	16	
M07	CLAMP(WS-2W-V0)	29C01421	16	
M08	LUG(L60)	29C01471	2	3500mm/SET
M09	FRONT PANEL(50XM3)	29D00554	1	
M10	SUB FRONT(50XM3)	29D00563	1	
M11	FRAME(50XM3)	29D00574	1	
M12	BUTTON COVER(50XM3)	29F00551	1	
M13	POWER BUTTON COVER(50XM3)	29F00561	1	
M14	HANDLE	29F00591	2	
M15	POWER BUTTON(50XM3)	29G00281	1	
M16	CONTROL BUTTON(50XM3)	29G00291	1	
M17	SHIELD PLATE MAIN(42XM3)	29H03541	1	
M18	BRACKET FILTER L(50XM3)	29H02461	1	
M19	BRACKET FILTER T(50XM3)	29H02471	1	
M20	BRACKET FILTER B(50XM3)	29H02481	1	
M21	PWB BASE MAIN(50XM4)	29H03461	1	
M22	PWB BASE SUB(50XM4)	29H03471	1	
M23	PS BRACKET(50XM3)	29H02512	1	
M24	SHIELD BOTTOM(50XM4)	29H03481	1	
M25	SHIELD CENTER	29H02532	1	
M26	SHIELD MAIN(50XM4)	29H03671	1	
M27	TERMINAL PANEL M(50XM3)	29H02551	1	
M28	TERMINAL PANEL S(50XM3)	29H02561	1	
M29	TERMINAL PANEL B(50XM3)	29H02571	1	
M30	PLANE R(50XM3)	29H02582	1	
M31	PLANE L(50XM3)	29H02592	1	
M32	STAND BRKT(50XM3)	29H02602	2	
M33				NOT USED
M34	GS COVER	29H02782	1	
M35	BRACKET FILTER R(50XM3)	29H02821	1	
M36	BARRIER PS(50XM3)	29J00971	1	
M37	CUSHION(580*10*T4.0)	29J01012	4	
M38	CUSHION(654*10*T4.0)	29J01022	2	NOT USED
M39				
M40	SILICONE SHEET(AUDIO)T	29J01291	1	
M41	FILTER(50A)	29KS0151	1	
M42	INDICATOR(50XM3)	29K00421	1	NOT USED
M43				
M44	TERMINAL SHEET S(50XM3)W	29K00581	1	
M45	TERMINAL SHEET B(50XM3)	29K00461	1	
M46	AC IN LABEL	29L00491	1	NOT USED
M47				
M48	SPEAKER LABEL	29L03552	1	NOT USED
M49				
M50	BACK COVER(50XM4)	29P01391	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M51	BARRIER(INLET)	24J15941	1	NOT USED NOT USED NOT USED NOT USED NOT USED
M52				
M53				
M54				
M55				
M56	MD SPACER(50XM4) AUDIO HEAT SINK	29F01071 29H03561	6 1	
M57				
M58				
*** PRINTED & PACKING MATERIALS ***				
SHT001	INFORMATION 50XM4G	7S801501	1	
SHT002	OPERATION 50XM4G/61XM3G	7S801541	1	
SHT003	NOTICE SHEET EU(PDP)	78038632	1	
PSC	POWER CORD E3 L3.0M L	7S553004	1	
PK01	BAR CODE SERIAL LABE	16761791	1	
PK02	STOPPER	24282431	2	
PK03	JOINT	24CS0551	4	
PK04	PROTECTION SHEET(50XM3)	29M00891	1	
PK05	PROTECTION SHEET S(50XM3)	29M00901	1	
PK06	SPACER TL(50XM3)	29MS2211	1	
PK07	SPACER TR(50XM3)	29MS2221	1	
PK08	SPACER BL(50XM3)	29MS2231	1	
PK09	SPACER BR(50XM3)	29MS2241	1	
PK10	SPACER BC(50XM3)	29MS2251	1	
PK11	CARTON BOX T(50XM4)	29MS3131	1	
PK12	PILLAR S(50XM4)	29MS3071	2	
PK13	PILLAR T(50XM3)	29MS2371	1	
PK14	CARTON BOX B(50XM3)	29MS2382	1	
PK15	SUPPORT BC(50XM3)	29MS2581	1	
PK16	ACCESSORY BOX(W)	29MS1641	1	
PK17	REM-T HAND UNIT RP-114	3S120221	1	
PK18	BAG,POLYETHYLENE(150*370)	24813191	1	
PK19	CLAMP(RST-1N)	29C01511	5	
PK20	FERRITE CORE ZCAT2032-930	6S170005	2	
PK21	BATTERY,DRY CELL R03 UB	4S490003	2	
PK22	CORE,FERRITE SFT-725NB	6S170003	2	
PK23				NOT USED
PK24	POLYETHYLENE BAG(70*100)	24M15221	1	
PK25	BRACKET(SAFE)	24P01591	2	
PK26	PL-CPIMS*4*10*3KF	910E4026	2	
PK27				NOT USED
PK28				NOT USED
PK29	MODEL NAME LABEL	29L05951	2	NOT USED
PK30				

PARTS LIST

Notes:

1. Parts orders must contain model name, parts number and parts name.
2. When you place an order for spare parts, please refer to the respective service manual and mention the right parts number on your P.O. sheets
3. The letters NSP in the table indicate non-service parts.
4. Please refer to METHOD OF DISASSEMBLY or PACKAGING of service manual about a parts layout.

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VER.54

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
*** PDP MODULE ***				
PDP	PDP-NP50X6MF01	3S350006	1	
*** PWB ASSYS ***				
A01	MAIN PWB ASSY	937F7M01	1	NOT USED
A02	232C PWB ASSY	937F7SA1	1	
A03	CTL PWB ASSY	937F7SB1	1	
A04	PWR PWB ASSY	937F7SC1	1	
A05	LED PWB ASSY	937F7SD1	1	
A06	SENB PWB ASSY	937F7SE1	1	
A07	SENC PWB ASSY	937F7SF1	1	
A08	SEND PWB ASSY	937F7SG1	1	
A09	AUDIO PWB ASSY	937F7SH1	1	
A10				
PSU	POWER UNIT	3S110174	1	
*** MISCELLANEOUS ELECTRICAL PARTS ***				
E01	FAN MOTOR 9G1212M4D03	3S170014	2	
E02	AC INLET 10GEEG3C	6S760013	1	
GND	CABLE 1P L360	7S530015	1	
CN-PI	CABLE 2P L265 ESD-R-19	7S530035	1	
FL30	CORE,FERRITE SFT-72SNB	6S170003	1	
FL32	FERRITE CORE ESD-R-19	6S170007	1	
CN-AD	CABLE 31P L390	7S530036	1	
CN-AU	CN 7P(AU) 1060W,2791-28	7SW7W002	1	
CN-LD	CN 5P(LD) 175,2468-26	7SU507LD	1	
CN-PA	CN 6P(PA) 600,2468-26	7SU624PA	1	
CN-PD	CN 10P(PD) 620W,1007-20	7SW0W012	1	
CN-PH	CN 4P(PH) 640W,1007-20	7SW4W014	1	
CN-PM	CN 7P(PM) 425,2468-26	7SU717PM	1	
CN-PN	CN 12P(PN) 500,2468-26	7SUB20PN	1	
CN-PV	CN 8P(PV) 425,2468-26	7SU817PV	1	
CN-PW	CN 8P(PW) 250,2468-26	7SC810PW	1	
CN-RS	CN 12P(RS) 200,2468-26	7SCB08RS	1	
CN-SW1	CN 3P(SW) 325W,2468-26	7SB3W006	1	
CN-SW2	CN 3P(SW) 1150W,2468-26	7SW3W008	1	
CN-TM	CN 4P(TM) 525,2468-26	7SC421TM	1	
CN-TR	CN 4P(TR) 650,2468-26	7SC426TR	1	
CN-TS	CN 4P(TS) 1075,2468-26	7SC443TS	1	
FL11	CORE,FERRITE SFT-72SNB	6S170003	1	
FL12	CORE,FERRITE SFT-72SNB	6S170003	1	
FL13	CORE,FERRITE SFT-72SNB	6S170003	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
FL21	FERRITE CORE ZCAT2032-930	6S170005	1	NOT USED NOT USED
FL22				
FL23				
FL24				
FL25				
FL26				
FL27				
FL31				
FL33				
FL34				
FL35				NOT USED NOT USED NOT USED
*** MECHANICAL PARTS ***				
SRW01	CBIPS*3*8*3KF	24N03691	2	NOT USED
SRW02	CBIPS*4*12*15KFE	29N01401	6	
SRW03	CBIPS*4*8*3KF	29N00521	20	
SRW04	PL-CPIMS*4*12*15KFE	29N01441	3	
SRW05	CBIPS*5*20*3GF	29N01511	6	
SRW06	CBIPS*4*12*15KFE	29N01401	10	
SRW07	CBIPS*4*12*15KFE	29N01401	11	
SRW08	CBIPS*4*12*15KFE	29N01401	8	
SRW09	CBIPS*4*12*15KFE	29N01401	1	
SRW10	CBIPS*4*12*15KFE	29N01401	8	
SRW11	CBIPS*4*12*15KFE	29N01401	7	
SRW12	CBIPS*4*12*15KFE	29N01401	2	
SRW13	CBIPS*4*12*15KFE	29N01401	2	
SRW14	PL-CPIMS*4*12*15KFE	29N01441	6	
SRW15	CBIPS*3*8*3KF	24N03691	7	
SRW16	SCREW(UNC4-40/4-40)	32990229	4	
SRW17	SCREW(UNC4-40/4-40)	32990229	2	
SRW18	TP-M3*6*3KF	24N04581	5	
SRW19				
SRW20	CBIPS*4*12*15KFE	29N01401	3	
SRW21	TP-M3*6*3KF	24N04581	1	
SRW22	CBIPS*4*12*15KFE	29N01401	1	
SRW23	TP-M3*6*3KF	24N04581	2	
SRW24	SCREW PL-CPIMS*3*10*15KFE	29N01431	2	
SRW25	CBIPS*3*8*3KF	24N03691	2	
SRW26	TP-M3*6*3KF	24N04581	4	
SRW27	TP-M3*6*3KF	24N04581	3	
SRW28	ET-CBIMS*4*8*3KF	24N04001	1	
SRW29	CBIPS*4*12*15KFE	29N01401	3	
SRW30	CBIPS*4*12*15KFE	29N01401	8	
SRW31	CBIPS*4*12*15KFE	29N01401	31	
SRW32	SCREW PL-CPIMS*3*10*15KFE	29N01431	9	
SRW33	CBIPS*5*16*15KFE	29N01411	4	
SRW34	TP-M3*6*3KF	24N04581	1	
GSK01				NOT USED
GSK02				NOT USED
GSK03				NOT USED
GSK04				NOT USED
GSK05	SHIELDING SHEET(300*4)	29C01641	1	
BRR01	BARRIER PS(50XM4)	29J01281	1	
BRR02	BARRIER PS(50XM4)	29J01281	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M01	CLAMPER,WIRE(D11.5)	24281251	1	NOT USED 3500mm/SET
M02	SERIAL LABEL	24L44731	1	
M03				
M04	EDGING SADDLE(EDS-1208U)	29C00461	5	
M05	SHIELDING TAPE AL(25*50M)	29C01911	1roll	
M06	CLAMP(MWC-2S)	29C01401	16	
M07	CLAMP(WS-2W-V0)	29C01421	16	
M08	LUG(L60)	29C01471	2	
M09	FRONT PANEL(50XM3)	29D00554	1	
M10	SUB FRONT(50XM3)	29D00563	1	
M11	FRAME(50XM3)	29D00574	1	
M12	BUTTON COVER(50XM3)	29F00551	1	
M13	POWER BUTTON COVER(50XM3)	29F00561	1	
M14	HANDLE	29F00591	2	
M15	POWER BUTTON(50XM3)	29G00281	1	
M16	CONTROL BUTTON(50XM3)	29G00291	1	
M17	SHIELD PLATE MAIN(42XM3)	29H03541	1	
M18	BRACKET FILTER L(50XM3)	29H02461	1	
M19	BRACKET FILTER T(50XM3)	29H02471	1	
M20	BRACKET FILTER B(50XM3)	29H02481	1	
M21	PWB BASE MAIN(50XM4)	29H03461	1	
M22	PWB BASE SUB(50XM4)	29H03471	1	
M23	PS BRACKET(50XM3)	29H02512	1	
M24	SHIELD BOTTOM(50XM4)	29H03481	1	
M25	SHIELD CENTER	29H02532	1	
M26	SHIELD MAIN(50XM4)	29H03671	1	
M27	TERMINAL PANEL M(50XM3)	29H02551	1	
M28	TERMINAL PANEL S(50XM3)	29H02561	1	
M29	TERMINAL PANEL B(50XM3)	29H02571	1	
M30	PLANE R(50XM3)	29H02582	1	
M31	PLANE L(50XM3)	29H02592	1	
M32	STAND BRKT(50XM3)	29H02602	2	
M33				NOT USED
M34	GS COVER	29H02782	1	
M35	BRACKET FILTER R(50XM3)	29H02821	1	
M36	BARRIER PS(50XM3)	29J00971	1	
M37	CUSHION(580*10*T4.0)	29J01012	4	NOT USED
M38	CUSHION(654*10*T4.0)	29J01022	2	
M39				
M40	SILICONE SHEET(AUDIO)T	29J01291	1	
M41	FILTER(50A)	29KS0151	1	
M42	INDICATOR(50XM3)	29K00421	1	
M43	TERMINAL SHEET M(50XM3)W	29K00571	1	
M44	TERMINAL SHEET S(50XM3)W	29K00581	1	
M45	TERMINAL SHEET B(50XM3)	29K00461	1	
M46	AC IN LABEL	29L00491	1	
M47	NAME PLATE(50XM4W)	29L05711	1	NSP
M48	SPEAKER LABEL	29L03552	1	
M49				NOT USED
M50	BACK COVER(50XM4)	29P01391	1	
M51	BARRIER(INLET)	24J15941	1	NOT USED NOT USED NOT USED
M52				
M53				
M54				

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M55				NOT USED
M56				NOT USED
M57	MD SPACER(50XM4)	29F01071	6	
M58	AUDIO HEAT SINK	29H03561	1	
*** PRINTED & PACKING MATERIALS ***				
SHT001	INFORMATION 50XM4W	7S801521	1	
SHT002	OPERATION 50XM4G/61XM3G	7S801541	1	
SHT003	NOTICE SHEET EU(PDP)	78038632	1	
PSC	POWER CORD E3 L3.0M L	7S553004	1	
PK01	BAR CODE SERIAL LABE	16761791	1	
PK02	STOPPER	24282431	2	
PK03	JOINT	24CS0551	4	
PK04	PROTECTION SHEET(50XM3)	29M00891	1	
PK05	PROTECTION SHEET S(50XM3)	29M00901	1	
PK06	SPACER TL(50XM3)	29MS2211	1	
PK07	SPACER TR(50XM3)	29MS2221	1	
PK08	SPACER BL(50XM3)	29MS2231	1	
PK09	SPACER BR(50XM3)	29MS2241	1	
PK10	SPACER BC(50XM3)	29MS2251	1	
PK11	CARTON BOX T(50XM4)	29MS3131	1	
PK12	PILLAR S(50XM4)	29MS3071	2	
PK13	PILLAR T(50XM3)	29MS2371	1	
PK14	CARTON BOX B(50XM3)	29MS2382	1	
PK15	SUPPORT BC(50XM3)	29MS2581	1	
PK16	ACCESSORY BOX(W)	29MS1641	1	
PK17	REM-T HAND UNIT RP-114	3S120221	1	
PK18	BAG,POLYETHYLENE(150*370)	24813191	1	
PK19	CLAMP(RST-1N)	29C01511	5	
PK20	FERRITE CORE ZCAT2032-930	6S170005	2	
PK21	BATTERY, DRY CELL R03 UB	4S490003	2	
PK22	CORE, FERRITE SFT-72SNB	6S170003	2	
PK23				NOT USED
PK24	POLYETHYLENE BAG(70*100)	24M15221	1	
PK25	BRACKET(SAFE)	24P01591	2	
PK26	PL-CPIMS*4*10*3KF	910E4026	2	
PK27				NOT USED
PK28				NOT USED
PK29	MODEL NAME LABEL	29L05951	2	
PK30				NOT USED

PARTS LIST

Notes:

1. Parts orders must contain model name, parts number and parts name.
2. When you place an order for spare parts, please refer to the respective service manual and mention the right parts number on your P.O. sheets
3. The letters NSP in the table indicate non-service parts.
4. Please refer to METHOD OF DISASSEMBLY or PACKAGING of service manual about a parts layout.

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VER.23

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
*** PDP MODULE ***				
PDP	PDP-NP50X6MF01	3S350006	1	
*** PWB ASSYS ***				
A01	MAIN PWB ASSY	937J0M01	1	
A02	232C PWB ASSY	937G0SA1	1	
A03	CTL PWB ASSY	937G0SB1	1	
A04	PWR PWB ASSY	937G0SC1	1	
A05	LED PWB ASSY	937G0SD1	1	
A06	SENB PWB ASSY	937G0SE1	1	
A07	SENC PWB ASSY	937G0SF1	1	
A08	SEND PWB ASSY	937G0SG1	1	
A09	AUDIO PWB ASSY	937G0SH1	1	
A10	CCD PWB ASSY	937F6C01	1	
PSU	POWER UNIT	3S110174	1	
*** MISCELLANEOUS ELECTRICAL PARTS ***				
E01	FAN MOTOR 9G1212M4D03	3S170014	2	
E02	AC INLET 10DKDG3S(Y1)	6S760016	1	
GND	CABLE 1P L360	7S530015	1	
CN-PI	CABLE 2P L265 ESD-R-19	7S530035	1	
FL32	FERRITE CORE ZCAT2032-930	6S170005	1	
FL63	FERRITE CORE ESD-R-19	6S170007	1	
FL64	CORE,FERRITE SFT-72SNB	6S170003	1	
CN-AD	CABLE 31P L390	7S530036	1	
CN-AU	CN 7P(AU) 1060W,2791-28	7SW7W002	1	
CN-LD	CN 5P(LD) 175,2468-26	7SU507LD	1	
CN-PA	CN 6P(PA) 600,2468-26	7SU624PA	1	
CN-PD	CN 10P(PD) 620W,1007-20	7SW0W012	1	
CN-PH	CN 4P(PH) 640W,1007-20	7SW4W014	1	
CN-PM	CN 7P(PM) 425,2468-26	7SU717PM	1	
CN-PN	CN 12P(PN) 500,2468-26	7SUB20PN	1	
CN-PV	CN 8P(PV) 425,2468-26	7SU817PV	1	
CN-PW	CN 8P(PW) 250,2468-26	7SC810PW	1	
CN-RS	CN 12P(RS) 200,2468-26	7SCB08RS	1	
CN-SW1	CN 3P(SW) 325W,2468-26	7SB3W006	1	
CN-SW2	CN 3P(SW) 1150W,2468-26	7SW3W008	1	
CN-TM	CN 4P(TM) 525,2468-26	7SC421TM	1	
CN-TR	CN 4P(TR) 650,2468-26	7SC426TR	1	
CN-TS	CN 4P(TS) 1075,2468-26	7SC443TS	1	
FL11	CORE,FERRITE SFT-72SNB	6S170003	1	
FL12	CORE,FERRITE SFT-72SNB	6S170003	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
FL13	CORE,FERRITE SFT-72SNB	6S170003	1	NOT USED NOT USED
FL21	FERRITE CORE ZCAT2032-930	6S170005	1	
FL22				
FL23				
FL24	FERRITE CORE ZCAT2032-930	6S170005	1	
FL25	FERRITE CORE ZCAT2032-930	6S170005	1	
FL26	FERRITE CORE ZCAT2032-930	6S170005	1	
FL27	FERRITE CORE ZCAT2032-930	6S170005	1	
FL31	FERRITE CORE ZCAT2032-930	6S170005	1	
FL33	FERRITE CORE ZCAT2032-930	6S170005	1	
FL34	FERRITE CORE ZCAT1518-0730	6S170006	1	
FL35	FERRITE CORE ZCAT2032-930	6S170005	1	
*** MECHANICAL PARTS ***				
SRW01	CBIPS*3*8*3KF	24N03691	2	NOT USED
SRW02	CBIPS*4*12*15KFE	29N01401	6	
SRW03	CBIPS*4*8*3KF	29N00521	20	
SRW04	PL-CPIMS*4*12*15KFE	29N01441	3	
SRW05	CBIPS*5*20*3GF	29N01511	6	
SRW06	CBIPS*4*12*15KFE	29N01401	10	
SRW07	CBIPS*4*12*15KFE	29N01401	11	
SRW08	CBIPS*4*12*15KFE	29N01401	8	
SRW09	CBIPS*4*12*15KFE	29N01401	1	
SRW10	CBIPS*4*12*15KFE	29N01401	8	
SRW11	CBIPS*4*12*15KFE	29N01401	7	
SRW12	CBIPS*4*12*15KFE	29N01401	2	
SRW13	CBIPS*4*12*15KFE	29N01401	2	
SRW14	PL-CPIMS*4*12*15KFE	29N01441	6	
SRW15	CBIPS*3*8*3KF	24N03691	7	
SRW16	SCREW(UNC4-40/4-40)	32990229	4	
SRW17	SCREW(UNC4-40/4-40)	32990229	2	
SRW18	TP-M3*6*3KF	24N04581	5	
SRW19				
SRW20	CBIPS*4*12*15KFE	29N01401	3	
SRW21	TP-M3*6*3KF	24N04581	1	
SRW22	CBIPS*4*12*15KFE	29N01401	1	
SRW23	TP-M3*6*3KF	24N04581	2	
SRW24	CPIMS*NO.6-32UNC*8*3GF	29N01131	2	
SRW25	CBIPS*3*8*3KF	24N03691	2	
SRW26	TP-M3*6*3KF	24N04581	4	
SRW27	TP-M3*6*3KF	24N04581	3	
SRW28	ET-CBIMS*4*8*3KF	24N04001	1	
SRW29	CBIPS*4*12*15KFE	29N01401	3	
SRW30	CBIPS*4*12*15KFE	29N01401	8	
SRW31	CBIPS*4*12*15KFE	29N01401	31	
SRW32	SCREW PL-CPIMS*3*10*15KFE	29N01431	9	
SRW33	CBIPS*5*16*15KFE	29N01411	4	
SRW34	TP-M3*6*3KF	24N04581	1	
GSK01	GASKET(L140*13*T1.5)	29C01801	4	
GSK02	SHIELDING SHEET(200*8)	29C01811	2	
GSK03	SHIELDING SHEET(114*8)	29C01821	3	
GSK04	SHIELDING SHEET(114*8)	29C01821	1	
GSK05	SHIELDING SHEET(300*4)	29C01641	1	
BRR01	BARRIER PS(50XM4)	29J01281	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
BRR02	BARRIER PS(50XM4)	29J01281	1	NOT USED
M01	CLAMPER,WIRE(D11.5)	24281251	1	
M02	SERIAL LABEL	24L44731	1	
M03				NOT USED
M04	EDGING SADDLE(EDS-1208U)	29C00461	5	
M05				
M06	CLAMP(MWC-2S)	29C01401	16	NOT USED
M07	CLAMP(WS-2W-V0)	29C01421	16	
M08	LUG(L60)	29C01471	2	
M09	FRONT PANEL ASSY(50XM3/S)	29DS0573	1	NOT USED
M10	SUB FRONT(50XM3)	29D00563	1	
M11	FRAME(50XM3)	29D00574	1	
M12	BUTTON COVER(50XM3/S)	29F00791	1	NOT USED
M13	POWER BUTTON COVER(50XM3)	29F00561	1	
M14	HANDLE	29F00591	2	
M15	POWER BUTTON(50XM3)	29G00281	1	NOT USED
M16	CONTROL BUTTON(50XM3/S)	29G00321	1	
M17	SHIELD PLATE MAIN(42XM3)	29H03541	1	
M18	BRACKET FILTER L(50XM3)	29H02461	1	NOT USED
M19	BRACKET FILTER T(50XM3)	29H02471	1	
M20	BRACKET FILTER B(50XM3)	29H02481	1	
M21	PWB BASE MAIN(50XM4)	29H03461	1	NOT USED
M22	PWB BASE SUB(50XM4)	29H03471	1	
M23	PS BRACKET(50XM3)	29H02512	1	
M24	SHIELD BOTTOM(50XM4)	29H03481	1	NOT USED
M25	SHIELD CENTER	29H02532	1	
M26	SHIELD MAIN(50XM4)	29H03671	1	
M27	TERMINAL PANEL M(50XM3)	29H02551	1	NOT USED
M28	TERMINAL PANEL S(50XM3)	29H02561	1	
M26	TERMINAL PANEL B(61XM2)	29H03191	1	
M30	PLANE R(50XM3)	29H02582	1	NOT USED
M31	PLANE L(50XM3)	29H02592	1	
M32	STAND BRKT(50XM3)	29H02602	2	
M33				NOT USED
M34	GS COVER	29H02782	1	
M35	BRACKET FILTER R(50XM3)	29H02821	1	
M36	BARRIER(INLET)	29J01321	1	NOT USED
M37	CUSHION(580*10*T4.0)	29J01012	4	
M38	CUSHION(654*10*T4.0)	29J01022	2	
M39				NOT USED
M40	SILICONE SHEET(AUDIO)T	29J01291	1	
M41	FILTER(50B)	29KS0161	1	
M42	INDICATOR(50XM3)	29K00421	1	NOT USED
M43	TERMINAL SHEET M(50XR4)CP	29K00671	1	
M44	TERMINAL SHEET S(50XR4)	29K00681	1	
M45	TERMINAL SHEET B(50XM3)	29K00461	1	NOT USED
M46	AC IN LABEL	29L00491	1	
M47	NAME PLATE(50XR4A)	29L05731	1	
M48	SPEAKER LABEL	29L03552	1	NOT USED
M49				
M50	BACK COVER(50XM4)	29P01391	1	
M51				NOT USED
M52				NOT USED
M53				NOT USED

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M54				NOT USED
M55				NOT USED
M56				NOT USED
M57				NOT USED
M58	AUDIO HEAT SINK	29H03561	1	
M59	INLET COLLAR	29F00481	2	
M60	MD SPACER(50XM4)	29F01071	6	
*** PRINTED & PACKING MATERIALS ***				
SHT001	INFORMATION 50XR4A	7S801421	1	
SHT002	OPERATION 50XR4A/61XR3A	7S801441	1	
SHT003	NOTICE SHEET US (PDP)	78038622	1	
PSC	POWER CORD U3 L3.0M L	7S552001	1	
PK01	BAR CODE SERIAL LABE	16761791	1	
PK02	STOPPER	24282431	2	
PK03	JOINT	24CS0551	4	
PK04	PROTECTION SHEET(50XM3)	29M00891	1	
PK05	PROTECTION SHEET S(50XM3)	29M00901	1	
PK06	SPACER TL(50XM3)	29MS2211	1	
PK07	SPACER TR(50XM3)	29MS2221	1	
PK08	SPACER BL(50XM3)	29MS2231	1	
PK09	SPACER BR(50XM3)	29MS2241	1	
PK10	SPACER BC(50XM3)	29MS2251	1	
PK11	CARTON BOX T(50XR4)	29MS3141	1	
PK12	PILLAR S(50XM4)	29MS3071	2	
PK13	PILLAR T(50XM3)	29MS2371	1	
PK14	CARTON BOX B(50XM3)	29MS2382	1	
PK15	SUPPORT BC(50XM3)	29MS2581	1	
PK16	ACCESSORY BOX(W)	29MS1641	1	
PK17	REM-T HAND UNIT RP-112	3S120201	1	
PK18	BAG,POLYETHYLENE(150*370)	24813191	1	
PK19	CLAMP(RST-1N)	29C01511	5	
PK20	FERRITE CORE ZCAT2032-930	6S170005	2	
PK21	BATTERY, DRY CELL R03 UB	4S490003	2	
PK22	CORE, FERRITE SFT-725NB	6S170003	2	
PK23				NOT USED
PK24	POLYETHYLENE BAG(70*100)	24M15221	1	
PK25	BRACKET(SAFE)	24P01591	2	
PK26	PL-CPIMS*4*10*3KF	910E4026	2	
PK27				NOT USED
PK28				NOT USED
PK29	MODEL NAME LABEL	29L05951	2	
PK30				NOT USED
PK31	BAG,POLYETHYLENE(150*370)	24813191	1	
PK32	HDMI-DVI CABLE LABEL	29L06291	1	
PK33	CABLE,HDMI-DVI L2M	7S580015	1	

PARTS LIST

Notes:

1. Parts orders must contain model name, parts number and parts name.
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3. The letters NSP in the table indicate non-service parts.
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SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
*** PDP MODULE ***				
PDP	PDP-NP50X6MF01	3S350006	1	
*** PWB ASSYS ***				
A01	MAIN PWB ASSY	937J1M01	1	NOT USED
A02	232C PWB ASSY	937G0SA1	1	
A03	CTL PWB ASSY	937G0SB1	1	
A04	PWR PWB ASSY	937G0SC1	1	
A05	LED PWB ASSY	937G0SD1	1	
A06	SENB PWB ASSY	937G0SE1	1	
A07	SENC PWB ASSY	937G0SF1	1	
A08	SEND PWB ASSY	937G0SG1	1	
A09	AUDIO PWB ASSY	937G0SH1	1	
A10				
PSU	POWER UNIT	3S110174	1	
*** MISCELLANEOUS ELECTRICAL PARTS ***				
E01	FAN MOTOR 9G1212M4D03	3S170014	2	
E02	AC INLET 10DKDG3S(Y1)	6S760016	1	
GND	CABLE 1P L360	7S530015	1	
CN-PI	CABLE 2P L265 ESD-R-19	7S530035	1	
FL32	FERRITE CORE ZCAT2032-930	6S170005	1	
FL63	FERRITE CORE ESD-R-19	6S170007	1	
FL64	CORE,FERRITE SFT-72SNB	6S170003	1	
CN-AD	CABLE 31P L390	7S530036	1	
CN-AU	CN 7P(AU) 1060W,2791-28	7SW7W002	1	
CN-LD	CN 5P(LD) 175,2468-26	7SU507LD	1	
CN-PA	CN 6P(PA) 600,2468-26	7SU624PA	1	
CN-PD	CN 10P(PD) 620W,1007-20	7SW0W012	1	
CN-PH	CN 4P(PH) 640W,1007-20	7SW4W014	1	
CN-PM	CN 7P(PM) 425,2468-26	7SU717PM	1	
CN-PN	CN 12P(PN) 500,2468-26	7SUB20PN	1	
CN-PV	CN 8P(PV) 425,2468-26	7SU817PV	1	
CN-PW	CN 8P(PW) 250,2468-26	7SC810PW	1	
CN-RS	CN 12P(RS) 200,2468-26	7SCB08RS	1	
CN-SW1	CN 3P(SW) 325W,2468-26	7SB3W006	1	
CN-SW2	CN 3P(SW) 1150W,2468-26	7SW3W008	1	
CN-TM	CN 4P(TM) 525,2468-26	7SC421TM	1	
CN-TR	CN 4P(TR) 650,2468-26	7SC426TR	1	
CN-TS	CN 4P(TS) 1075,2468-26	7SC443TS	1	
FL11	CORE,FERRITE SFT-72SNB	6S170003	1	
FL12	CORE,FERRITE SFT-72SNB	6S170003	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
FL13	CORE,FERRITE SFT-72SNB	6S170003	1	NOT USED NOT USED
FL21	FERRITE CORE ZCAT2032-930	6S170005	1	
FL22				
FL23				
FL24	FERRITE CORE ZCAT2032-930	6S170005	1	
FL25	FERRITE CORE ZCAT2032-930	6S170005	1	
FL26	FERRITE CORE ZCAT2032-930	6S170005	1	
FL27	FERRITE CORE ZCAT2032-930	6S170005	1	
FL31	FERRITE CORE ZCAT2032-930	6S170005	1	
FL33	FERRITE CORE ZCAT2032-930	6S170005	1	
FL34	FERRITE CORE ZCAT1518-0730	6S170006	1	
FL35	FERRITE CORE ZCAT2032-930	6S170005	1	
*** MECHANICAL PARTS ***				
SRW01	CBIPS*3*8*3KF	24N03691	2	NOT USED
SRW02	CBIPS*4*12*15KFE	29N01401	6	
SRW03	CBIPS*4*8*3KF	29N00521	20	
SRW04	PL-CPIMS*4*12*15KFE	29N01441	3	
SRW05	CBIPS*5*20*3GF	29N01511	6	
SRW06	CBIPS*4*12*15KFE	29N01401	10	
SRW07	CBIPS*4*12*15KFE	29N01401	11	
SRW08	CBIPS*4*12*15KFE	29N01401	8	
SRW09	CBIPS*4*12*15KFE	29N01401	1	
SRW10	CBIPS*4*12*15KFE	29N01401	8	
SRW11	CBIPS*4*12*15KFE	29N01401	7	
SRW12	CBIPS*4*12*15KFE	29N01401	2	
SRW13	CBIPS*4*12*15KFE	29N01401	2	
SRW14	PL-CPIMS*4*12*15KFE	29N01441	6	
SRW15	CBIPS*3*8*3KF	24N03691	7	
SRW16	SCREW(UNC4-40/4-40)	32990229	4	
SRW17	SCREW(UNC4-40/4-40)	32990229	2	
SRW18	TP-M3*6*3KF	24N04581	5	
SRW19				
SRW20	CBIPS*4*12*15KFE	29N01401	3	
SRW21	TP-M3*6*3KF	24N04581	1	
SRW22	CBIPS*4*12*15KFE	29N01401	1	
SRW23	TP-M3*6*3KF	24N04581	2	
SRW24	CPIMS*NO.6-32UNC*8*3GF	29N01131	2	
SRW25	CBIPS*3*8*3KF	24N03691	2	
SRW26	TP-M3*6*3KF	24N04581	4	
SRW27	TP-M3*6*3KF	24N04581	3	
SRW28	ET-CBIMS*4*8*3KF	24N04001	1	
SRW29	CBIPS*4*12*15KFE	29N01401	3	
SRW30	CBIPS*4*12*15KFE	29N01401	8	
SRW31	CBIPS*4*12*15KFE	29N01401	31	
SRW32	SCREW PL-CPIMS*3*10*15KFE	29N01431	9	
SRW33	CBIPS*5*16*15KFE	29N01411	4	
SRW34	TP-M3*6*3KF	24N04581	1	
GSK01	GASKET(L140*13*T1.5)	29C01801	4	
GSK02	SHIELDING SHEET(200*8)	29C01811	2	
GSK03	SHIELDING SHEET(114*8)	29C01821	3	
GSK04	SHIELDING SHEET(114*8)	29C01821	1	
GSK05	SHIELDING SHEET(300*4)	29C01641	1	
BRR01	BARRIER PS(50XM4)	29J01281	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
BRR02	BARRIER PS(50XM4)	29J01281	1	NOT USED
M01	CLAMPER,WIRE(D11.5)	24281251	1	
M02	SERIAL LABEL	24L44731	1	
M03				NOT USED
M04	EDGING SADDLE(EDS-1208U)	29C00461	5	
M05				
M06	CLAMP(MWC-2S)	29C01401	16	NOT USED
M07	CLAMP(WS-2W-V0)	29C01421	16	
M08	LUG(L60)	29C01471	2	
M09	FRONT PANEL ASSY(50XM3/S)	29DS0573	1	NOT USED
M10	SUB FRONT(50XM3)	29D00563	1	
M11	FRAME(50XM3)	29D00574	1	
M12	BUTTON COVER(50XM3/S)	29F00791	1	NOT USED
M13	POWER BUTTON COVER(50XM3)	29F00561	1	
M14	HANDLE	29F00591	2	
M15	POWER BUTTON(50XM3)	29G00281	1	NOT USED
M16	CONTROL BUTTON(50XM3/S)	29G00321	1	
M17	SHIELD PLATE MAIN(42XM3)	29H03541	1	
M18	BRACKET FILTER L(50XM3)	29H02461	1	NOT USED
M19	BRACKET FILTER T(50XM3)	29H02471	1	
M20	BRACKET FILTER B(50XM3)	29H02481	1	
M21	PWB BASE MAIN(50XM4)	29H03461	1	NOT USED
M22	PWB BASE SUB(50XM4)	29H03471	1	
M23	PS BRACKET(50XM3)	29H02512	1	
M24	SHIELD BOTTOM(50XM4)	29H03481	1	NOT USED
M25	SHIELD CENTER	29H02532	1	
M26	SHIELD MAIN(50XM4)	29H03671	1	
M27	TERMINAL PANEL M(50XM3)	29H02551	1	NOT USED
M28	TERMINAL PANEL S(50XM3)	29H02561	1	
M29	TERMINAL PANEL B(61XM2)	29H03191	1	
M30	PLANE R(50XM3)	29H02582	1	NOT USED
M31	PLANE L(50XM3)	29H02592	1	
M32	STAND BRKT(50XM3)	29H02602	2	
M33				NOT USED
M34	GS COVER	29H02782	1	
M35	BRACKET FILTER R(50XM3)	29H02821	1	
M36	BARRIER(INLET)	29J01321	1	NOT USED
M37	CUSHION(580*10*T4.0)	29J01012	4	
M38	CUSHION(654*10*T4.0)	29J01022	2	
M39				NOT USED
M40	SILICONE SHEET(AUDIO)T	29J01291	1	
M41	FILTER(50B)	29KS0161	1	
M42	INDICATOR(50XM3)	29K00421	1	NOT USED
M43				
M44	TERMINAL SHEET S(50XR4)	29K00681	1	
M45	TERMINAL SHEET B(50XM3)	29K00461	1	NOT USED
M46	AC IN LABEL	29L00491	1	
M47				
M48	SPEAKER LABEL	29L03552	1	NOT USED
M49				
M50	BACK COVER(50XM4)	29P01391	1	
M51				NOT USED
M52				NOT USED
M53				NOT USED

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M54				NOT USED
M55				NOT USED
M56				NOT USED
M57				NOT USED
M58	AUDIO HEAT SINK	29H03561	1	
M59	INLET COLLAR	29F00481	2	
M60	MD SPACER(50XM4)	29F01071	6	
*** PRINTED & PACKING MATERIALS ***				
SHT001	INFORMATION 50XR4G	7S801601	1	
SHT002	OPERATION 50XR4G/61XR3G	7S801641	1	
SHT003	NOTICE SHEET EU(PDP)	78038632	1	
PSC	POWER CORD E3 L3.0M L	7S553004	1	
PK01	BAR CODE SERIAL LABE	16761791	1	
PK02	STOPPER	24282431	2	
PK03	JOINT	24CS0551	4	
PK04	PROTECTION SHEET(50XM3)	29M00891	1	
PK05	PROTECTION SHEET S(50XM3)	29M00901	1	
PK06	SPACER TL(50XM3)	29MS2211	1	
PK07	SPACER TR(50XM3)	29MS2221	1	
PK08	SPACER BL(50XM3)	29MS2231	1	
PK09	SPACER BR(50XM3)	29MS2241	1	
PK10	SPACER BC(50XM3)	29MS2251	1	
PK11	CARTON BOX T(50XR4)	29MS3141	1	
PK12	PILLAR S(50XM4)	29MS3071	2	
PK13	PILLAR T(50XM3)	29MS2371	1	
PK14	CARTON BOX B(50XM3)	29MS2382	1	
PK15	SUPPORT BC(50XM3)	29MS2581	1	
PK16	ACCESSORY BOX(W)	29MS1641	1	
PK17	REM-T HAND UNIT RP-112	3S120201	1	
PK18	BAG,POLYETHYLENE(150*370)	24813191	1	
PK19	CLAMP(RST-1N)	29C01511	5	
PK20	FERRITE CORE ZCAT2032-930	6S170005	2	
PK21	BATTERY, DRY CELL R03 UB	4S490003	2	
PK22	CORE, FERRITE SFT-725NB	6S170003	2	
PK23				NOT USED
PK24	POLYETHYLENE BAG(70*100)	24M15221	1	
PK25	BRACKET(SAFE)	24P01591	2	
PK26	PL-CPIMS*4*10*3KF	910E4026	2	
PK27				NOT USED
PK28				NOT USED
PK29	MODEL NAME LABEL	29L05951	2	
PK30				NOT USED
PK31				NOT USED
PK32				NOT USED
PK33	CABLE,HDMI-DVI L2M	7S580015	1	

PARTS LIST

Notes:

1. Parts orders must contain model name, parts number and parts name.
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3. The letters NSP in the table indicate non-service parts.
4. Please refer to METHOD OF DISASSEMBLY or PACKAGING of service manual about a parts layout.

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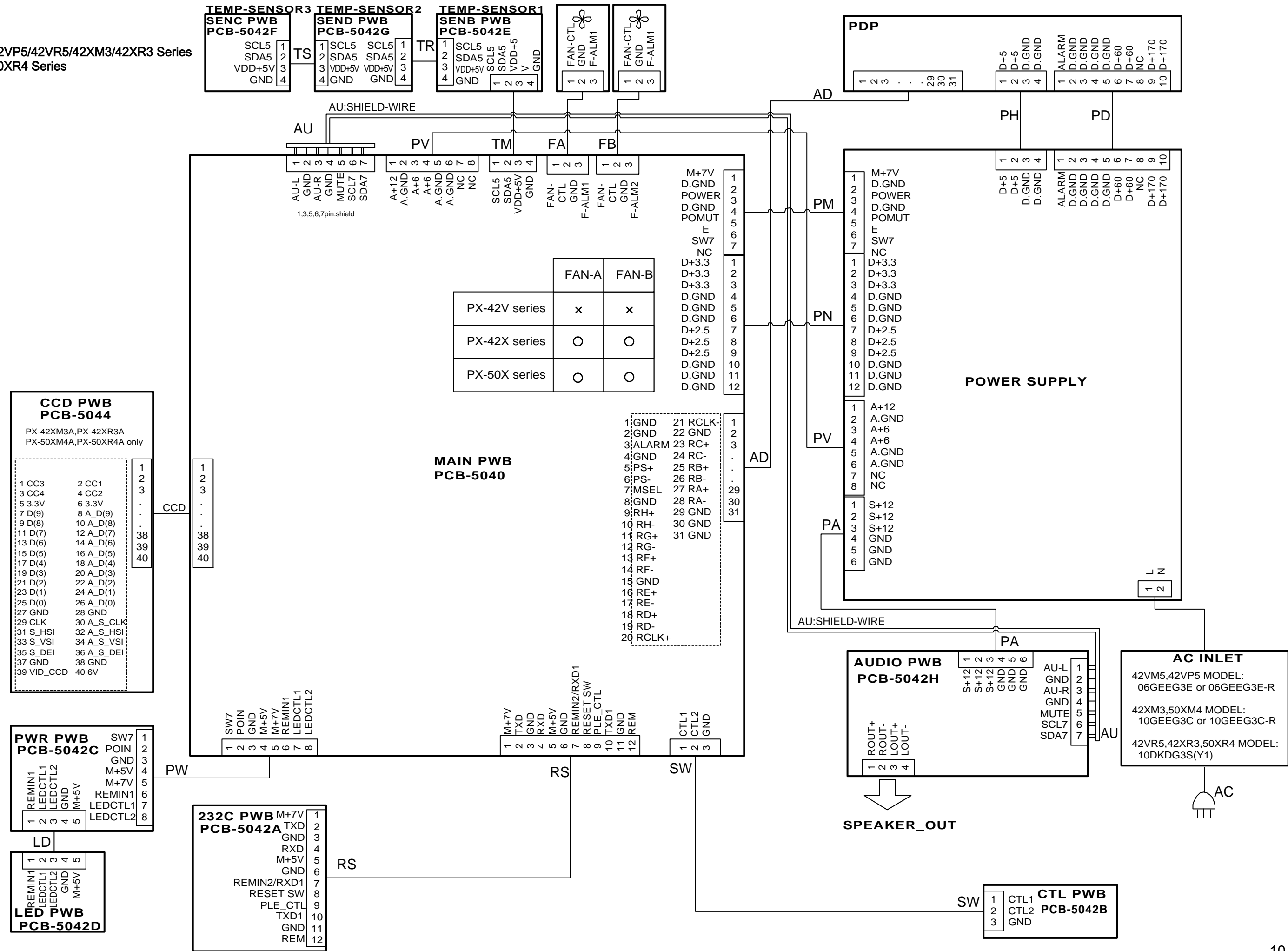
SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
*** PDP MODULE ***				
PDP	PDP-NP50X6MF01	3S350006	1	
*** PWB ASSYS ***				
A01	MAIN PWB ASSY	937J1M01	1	NOT USED
A02	232C PWB ASSY	937G0SA1	1	
A03	CTL PWB ASSY	937G0SB1	1	
A04	PWR PWB ASSY	937G0SC1	1	
A05	LED PWB ASSY	937G0SD1	1	
A06	SENB PWB ASSY	937G0SE1	1	
A07	SENC PWB ASSY	937G0SF1	1	
A08	SEND PWB ASSY	937G0SG1	1	
A09	AUDIO PWB ASSY	937G0SH1	1	
A10				
PSU	POWER UNIT	3S110174	1	
*** MISCELLANEOUS ELECTRICAL PARTS ***				
E01	FAN MOTOR 9G1212M4D03	3S170014	2	
E02	AC INLET 10DKDG3S(Y1)	6S760016	1	
GND	CABLE 1P L360	7S530015	1	
CN-PI	CABLE 2P L265 ESD-R-19	7S530035	1	
FL32	FERRITE CORE ZCAT2032-930	6S170005	1	
FL63	FERRITE CORE ESD-R-19	6S170007	1	
FL64	CORE,FERRITE SFT-72SNB	6S170003	1	
CN-AD	CABLE 31P L390	7S530036	1	
CN-AU	CN 7P(AU) 1060W,2791-28	7SW7W002	1	
CN-LD	CN 5P(LD) 175,2468-26	7SU507LD	1	
CN-PA	CN 6P(PA) 600,2468-26	7SU624PA	1	
CN-PD	CN 10P(PD) 620W,1007-20	7SW0W012	1	
CN-PH	CN 4P(PH) 640W,1007-20	7SW4W014	1	
CN-PM	CN 7P(PM) 425,2468-26	7SU717PM	1	
CN-PN	CN 12P(PN) 500,2468-26	7SUB20PN	1	
CN-PV	CN 8P(PV) 425,2468-26	7SU817PV	1	
CN-PW	CN 8P(PW) 250,2468-26	7SC810PW	1	
CN-RS	CN 12P(RS) 200,2468-26	7SCB08RS	1	
CN-SW1	CN 3P(SW) 325W,2468-26	7SB3W006	1	
CN-SW2	CN 3P(SW) 1150W,2468-26	7SW3W008	1	
CN-TM	CN 4P(TM) 525,2468-26	7SC421TM	1	
CN-TR	CN 4P(TR) 650,2468-26	7SC426TR	1	
CN-TS	CN 4P(TS) 1075,2468-26	7SC443TS	1	
FL11	CORE,FERRITE SFT-72SNB	6S170003	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
FL12	CORE,FERRITE SFT-72SNB	6S170003	1	NOT USED NOT USED
FL13	CORE,FERRITE SFT-72SNB	6S170003	1	
FL21	FERRITE CORE ZCAT2032-930	6S170005	1	
FL22				
FL23				
FL24	FERRITE CORE ZCAT2032-930	6S170005	1	
FL25	FERRITE CORE ZCAT2032-930	6S170005	1	
FL26	FERRITE CORE ZCAT2032-930	6S170005	1	
FL27	FERRITE CORE ZCAT2032-930	6S170005	1	
FL31	FERRITE CORE ZCAT2032-930	6S170005	1	
FL33	FERRITE CORE ZCAT2032-930	6S170005	1	
FL34	FERRITE CORE ZCAT1518-0730	6S170006	1	
FL35	FERRITE CORE ZCAT2032-930	6S170005	1	
*** MECHANICAL PARTS ***				
SRW01	CBIPS*3*8*3KF	24N03691	2	NOT USED
SRW02	CBIPS*4*12*15KFE	29N01401	6	
SRW03	CBIPS*4*8*3KF	29N00521	20	
SRW04	PL-CPIMS*4*12*15KFE	29N01441	3	
SRW05	CBIPS*5*20*3GF	29N01511	6	
SRW06	CBIPS*4*12*15KFE	29N01401	10	
SRW07	CBIPS*4*12*15KFE	29N01401	11	
SRW08	CBIPS*4*12*15KFE	29N01401	8	
SRW09	CBIPS*4*12*15KFE	29N01401	1	
SRW10	CBIPS*4*12*15KFE	29N01401	8	
SRW11	CBIPS*4*12*15KFE	29N01401	7	
SRW12	CBIPS*4*12*15KFE	29N01401	2	
SRW13	CBIPS*4*12*15KFE	29N01401	2	
SRW14	PL-CPIMS*4*12*15KFE	29N01441	6	
SRW15	CBIPS*3*8*3KF	24N03691	7	
SRW16	SCREW(UNC4-40/4-40)	32990229	4	
SRW17	SCREW(UNC4-40/4-40)	32990229	2	
SRW18	TP-M3*6*3KF	24N04581	5	
SRW19				
SRW20	CBIPS*4*12*15KFE	29N01401	3	
SRW21	TP-M3*6*3KF	24N04581	1	
SRW22	CBIPS*4*12*15KFE	29N01401	1	
SRW23	TP-M3*6*3KF	24N04581	2	
SRW24	CPIMS*NO.6-32UNC*8*3GF	29N01131	2	
SRW25	CBIPS*3*8*3KF	24N03691	2	
SRW26	TP-M3*6*3KF	24N04581	4	
SRW27	TP-M3*6*3KF	24N04581	3	
SRW28	ET-CBIMS*4*8*3KF	24N04001	1	
SRW29	CBIPS*4*12*15KFE	29N01401	3	
SRW30	CBIPS*4*12*15KFE	29N01401	8	
SRW31	CBIPS*4*12*15KFE	29N01401	31	
SRW32	SCREW PL-CPIMS*3*10*15KFE	29N01431	9	
SRW33	CBIPS*5*16*15KFE	29N01411	4	
SRW34	TP-M3*6*3KF	24N04581	1	
GSK01	GASKET(L140*13*T1.5)	29C01801	4	
GSK02	SHIELDING SHEET(200*8)	29C01811	2	
GSK03	SHIELDING SHEET(114*8)	29C01821	3	
GSK04	SHIELDING SHEET(114*8)	29C01821	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
GSK05	SHIELDING SHEET(300*4)	29C01641	1	NOT USED
BRR01	BARRIER PS(50XM4)	29J01281	1	
BRR02	BARRIER PS(50XM4)	29J01281	1	
M01	CLAMPER,WIRE(D11.5)	24281251	1	
M02	SERIAL LABEL	24L44731	1	
M03				
M04	EDGING SADDLE(EDS-1208U)	29C00461	5	
M05				
M06	CLAMP(MWC-2S)	29C01401	16	
M07	CLAMP(WS-2W-V0)	29C01421	16	
M08	LUG(L60)	29C01471	2	NOT USED
M09	FRONT PANEL ASSY(50XM3/S)	29DS0573	1	
M10	SUB FRONT(50XM3)	29D00563	1	
M11	FRAME(50XM3)	29D00574	1	
M12	BUTTON COVER(50XM3/S)	29F00791	1	
M13	POWER BUTTON COVER(50XM3)	29F00561	1	
M14	HANDLE	29F00591	2	
M15	POWER BUTTON(50XM3)	29G00281	1	
M16	CONTROL BUTTON(50XM3/S)	29G00321	1	
M17	SHIELD PLATE MAIN(42XM3)	29H03541	1	
M18	BRACKET FILTER L(50XM3)	29H02461	1	NOT USED
M19	BRACKET FILTER T(50XM3)	29H02471	1	
M20	BRACKET FILTER B(50XM3)	29H02481	1	
M21	PWB BASE MAIN(50XM4)	29H03461	1	
M22	PWB BASE SUB(50XM4)	29H03471	1	
M23	PS BRACKET(50XM3)	29H02512	1	
M24	SHIELD BOTTOM(50XM4)	29H03481	1	
M25	SHIELD CENTER	29H02532	1	
M26	SHIELD MAIN(50XM4)	29H03671	1	
M27	TERMINAL PANEL M(50XM3)	29H02551	1	NOT USED
M28	TERMINAL PANEL S(50XM3)	29H02561	1	
M29	TERMINAL PANEL B(61XM2)	29H03191	1	
M30	PLANE R(50XM3)	29H02582	1	
M31	PLANE L(50XM3)	29H02592	1	
M32	STAND BRKT(50XM3)	29H02602	2	
M33				
M34	GS COVER	29H02782	1	
M35	BRACKET FILTER R(50XM3)	29H02821	1	
M36	BARRIER(INLET)	29J01321	1	NOT USED
M37	CUSHION(580*10*T4.0)	29J01012	4	
M38	CUSHION(654*10*T4.0)	29J01022	2	
M39				
M40	SILICONE SHEET(AUDIO)T	29J01291	1	
M41	FILTER(50B)	29KS0161	1	
M42	INDICATOR(50XM3)	29K00421	1	
M43	TERMINAL SHEET M(50XR4)CP	29K00671	1	
M44	TERMINAL SHEET S(50XR4)	29K00681	1	
M45	TERMINAL SHEET B(50XM3)	29K00461	1	NSP
M46	AC IN LABEL	29L00491	1	
M47	NAME PLATE(50XR4W)	29L05741	1	
M48	SPEAKER LABEL	29L03552	1	
M49				
M50	BACK COVER(50XM4)	29P01391	1	

SYMBOL	PARTS NAME	PARTS NO.	Q'TY	NOTE
M51				NOT USED
M52				NOT USED
M53				NOT USED
M54				NOT USED
M55				NOT USED
M56				NOT USED
M57				NOT USED
M58	AUDIO HEAT SINK	29H03561	1	
M59	INLET COLLAR	29F00481	2	
M60	MD SPACER(50XM4)	29F01071	6	
*** PRINTED & PACKING MATERIALS ***				
SHT001	INFORMATION 50XR4W	7S801621	1	
SHT002	OPERATION 50XR4G/61XR3G	7S801641	1	
SHT003	NOTICE SHEET EU(PDP)	78038632	1	
PSC	POWER CORD E3 L3.0M L	7S553004	1	
PK01	BAR CODE SERIAL LABE	16761791	1	
PK02	STOPPER	24282431	2	
PK03	JOINT	24CS0551	4	
PK04	PROTECTION SHEET(50XM3)	29M00891	1	
PK05	PROTECTION SHEET S(50XM3)	29M00901	1	
PK06	SPACER TL(50XM3)	29MS2211	1	
PK07	SPACER TR(50XM3)	29MS2221	1	
PK08	SPACER BL(50XM3)	29MS2231	1	
PK09	SPACER BR(50XM3)	29MS2241	1	
PK10	SPACER BC(50XM3)	29MS2251	1	
PK11	CARTON BOX T(50XR4)	29MS3141	1	
PK12	PILLAR S(50XM4)	29MS3071	2	
PK13	PILLAR T(50XM3)	29MS2371	1	
PK14	CARTON BOX B(50XM3)	29MS2382	1	
PK15	SUPPORT BC(50XM3)	29MS2581	1	
PK16	ACCESSORY BOX(W)	29MS1641	1	
PK17	REM-T HAND UNIT RP-112	3S120201	1	
PK18	BAG,POLYETHYLENE(150*370)	24813191	1	
PK19	CLAMP(RST-1N)	29C01511	5	
PK20	FERRITE CORE ZCAT2032-930	6S170005	2	
PK21	BATTERY, DRY CELL R03 UB	4S490003	2	
PK22	CORE, FERRITE SFT-725NB	6S170003	2	
PK23				NOT USED
PK24	POLYETHYLENE BAG(70*100)	24M15221	1	
PK25	BRACKET(SAFE)	24P01591	2	
PK26	PL-CPIMS*4*10*3KF	910E4026	2	
PK27				NOT USED
PK28				NOT USED
PK29	MODEL NAME LABEL	29L05951	2	
PK30				NOT USED
PK31				NOT USED
PK32				NOT USED
PK33	CABLE,HDMI-DVI L2M	7S580015	1	

PX-42VM5/42VP5/42VR5/42XM3/42XR3 Series
PX-50XM4/50XR4 Series



CONNECTOR PIN EXPLANATION

PX-42VM5/42VP5/42VR5/42XM3/42XR3/50XM4/50XR4/61XM3/61XR3 Series											
(Caution) The operating voltages specified below are used in common irrespective of the presence of signals. In this case, however, part of the operating voltages (red characters) may change according to the signal conditions when the main power supply is turned on (POWER button ON). Status of LED lighting: ★ for lighting in green, ★★ for unlighting, and ★★★ for lighting in red.											
Vol.1											
Name	Pin No.	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
PN	1	D+3.3	3.3V power supply for digital circuits	0	3.3	3.3	0	0	0	0	POWER→MAIN
	2	D+3.3	3.3V power supply for digital circuits	0	3.3	3.3	0	0	0	0	POWER→MAIN
	3	D+3.3	3.3V power supply for digital circuits	0	3.3	3.3	0	0	0	0	POWER→MAIN
	4	D.GND	GND	0	0	0	0	0	0	0	-
	5	D.GND	GND	0	0	0	0	0	0	0	-
	6	D.GND	GND	0	0	0	0	0	0	0	-
	7	D+2.5	2.5V power supply for digital circuits	0	2.5	2.5	0	0	0	0	POWER→MAIN
	8	D+2.5	2.5V power supply for digital circuits	0	2.5	2.5	0	0	0	0	POWER→MAIN
	9	D+2.5	2.5V power supply for digital circuits	0	2.5	2.5	0	0	0	0	POWER→MAIN
	10	D.GND	GND	0	0	0	0	0	0	0	-
	11	D.GND	GND	0	0	0	0	0	0	0	-
	12	D.GND	GND	0	0	0	0	0	0	0	-
PM	1	M+7	7V power supply for microcomputer	6.8	6.8	6.8	6.8	6.8	6.8	6.8	POWER→MAIN
	2	D.GND	GND	0	0	0	0	0	0	0	-
	3	POWER	Power control	0	4.9	4.9	0	0	0	0	MAIN→POWER
	4	D.GND	GND	0	0	0	0	0	0	0	-
	5	POMUTE	Mute signal for AC power OFF	4.8	4.8	4.8	4.8	4.8	4.8	4.8	POWER→MAIN
	6	SW7	Power start control	0	6.8	6.8	6.8	6.8	0	0	POWER→MAIN
	7	N C	Non-connection terminal	-	-	-	-	-	-	-	-
PV	1	A+12	12V power supply for analog circuits	0	12	12	0	0	0	0	POWER→MAIN
	2	A.GND	GND	0	0	0	0	0	0	0	-
	3	A+6	6V power supply for analog circuits	0	6	6	0	0	0	0	POWER→MAIN
	4	A+6	6V power supply for analog circuits	0	6	6	0	0	0	0	POWER→MAIN
	5	A.GND	GND	0	0	0	0	0	0	0	-
	6	A.GND	GND	0	0	0	0	0	0	0	-
	7	NC	Non-connection terminal	-	-	-	-	-	-	-	-
	8	NC	Non-connection terminal	-	-	-	-	-	-	-	-
AU	1	AU_L	Audio signal L CH	0	Selected input signals are output.	Selected input signals are output.	0	0	0	0	MAIN→AUDIO
	2	GND	GND	0	0	0	0	0	0	0	-
	3	AU_R	Audio signal R CH	0	Selected input signals are output.	Selected input signals are output.	0	0	0	0	MAIN→AUDIO
	4	GND	GND	0	0	0	0	0	0	0	-
	5	MUTE	Mute signal of audio output	3.5	3.5-0	3.5-0	3.5	3.5-0	3.5	3.5	MAIN→AUDIO
	6	SCL7	Clock line of the I2C bus	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	0	0	0	MAIN→AUDIO
	7	SDA7	Data line of the I2C bus	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	1	1	0	0	MAIN→AUDIO
RS	1	M+5V	5V power supply for microcomputer	0	5	5	5	5	0	0	MAIN→RS232C
	2	TXD	RS232 driver output	0	Clock signal used during data transmission (3.3Vac); 3.3Vdc when no data are received.	Clock signal used during data transmission (3.3Vac); 3.3Vdc when no data are received.	0	0	0	0	MAIN→RS232C
	3	GND	GND	0	0	0	0	0	0	0	-
	4	RXD	RS232 receiver input	0	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	0	0	0	0	RS232C→MAIN
	5	M+3.3V	3.3V power supply for microcomputer	0	3.3	3.3	3.3	3.3	0	0	MAIN→RS232C
	6	GND	GND	0	0	0	0	0	0	0	-
	7	REMIN2/RXD 1	Data signal of wired remote control	0	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	0	0	0	0	RS232C→MAIN
			42VM5 42VP5 42XM3 50XM4 61XM3	0	0	0	0	0	0	0	-
			42VR5 42XR3 50XR4 61XR3	0	0	0	0	0	0	0	-
	8	RESET SW	NC	-	-	-	-	-	-	-	-
	9	PLE_CTL	PLE control	0	3.3V during data transmission for Video WOLL; 0V when no data are transmitted.	3.3V during data transmission for Video WOLL; 0V when no data are transmitted.	0	0	0	0	MAIN→RS232C
			42VM5 42VP5 42XM3 50XM4 61XM3	0	0	0	0	0	0	0	-
			42VR5 42XR3 50XR4 61XR3	0	0	0	0	0	0	0	-
	10	TXD1	RS232 driver output	0	Clock signal used during data transmission (5Vac) 5Vdc when no data are transmitted.	Clock signal used during data transmission (5Vac) 5Vdc when no data are transmitted.	0	0	0	0	MAIN→RS232C

Name	Pin No.	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction	
				AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★		
					No signal	With signal						
			42VR5 42XR3 50XR4 61XR3	0	0	0	0	0	0	-		
	11	232C_SHUT	ON/OFF control for TXD0 driver	0	3.3	3.3	3.3	3.3	0	-	MAIN→RS232C	
	12	REM	Insertion detection for wired remote control input	0	3.3V when a wired remote control is connected/ When not connected.	3.3V when a wired remote control is connected/ When not connected.	3.3V when a wired remote control is connected/ When not connected.	3.3V when a wired remote control is connected/ When not connected.	0	-	RS232C→MAIN	
			42VR5 42XR3 50XR4 61XR3	-	-	-	-	-	-	-	(NC for Model R)	
TM	1	SCL5	Clock line of the I2C bus	0	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	0	0	0	0	-	MAIN→SENB
	2	GND	GND	0	0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals	0	3.3	3.3	0	0	0	0	-	MAIN→SENB
	4	SDA5	Data line of the I2C bus	0	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	0	-	MAIN→SENB
TR	1	SCL5	Clock line of the I2C bus	0	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	0	0	0	0	-	SENB→SEND
	2	GND	GND	0	0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals	0	3.3	3.3	0	0	0	0	-	SENB→SEND
	4	SDA5	Data line of the I2C bus	0	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	0	-	SENB→SEND
TS	1	SCL5	Clock line of the I2C bus	0	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	Clock signal used during data transmission (3.3Vac) 3.3Vdc when no data are transmitted.	0	0	0	0	-	SEND→SENC
	2	GND	GND	0	0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals	0	3.3	3.3	0	0	0	0	-	SEND→SENC
	4	SDA5	Data line of the I2C bus	0	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	0	-	SEND→SENC
FA	1	FAN-CTL	Voltage-controllable power supply	-	-	-	-	-	-	-	-	-
			42VM5 42VP5 42VR5	-	-	-	-	-	-	-	-	-
			42XM3 42XR3	0	11.5Vdc during high-speed revolution (Fan mode H); 8.5Vdc during medium speed revolution (Fan mode M); 6.5Vdc during low-speed revolution (Fan mode L)	11.5Vdc during high-speed revolution (Fan mode H); 8.5Vdc during medium speed revolution (Fan mode M); 6.5Vdc during low-speed revolution (Fan mode L)	0	0	0	0	-	MAIN→FAN
			50XM4 50XR4	0	11.6Vdc during high-speed revolution (Fan mode H); 7.8Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	11.6Vdc during high-speed revolution (Fan mode H); 7.8Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	0	-	-
			61XM3 61XR3	0	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	0	-	-
	2	GND	GND	0	0	0	0	0	0	0	-	-
	3	ALARM	FAN lock detect signal output	-	-	-	-	-	-	-	-	-

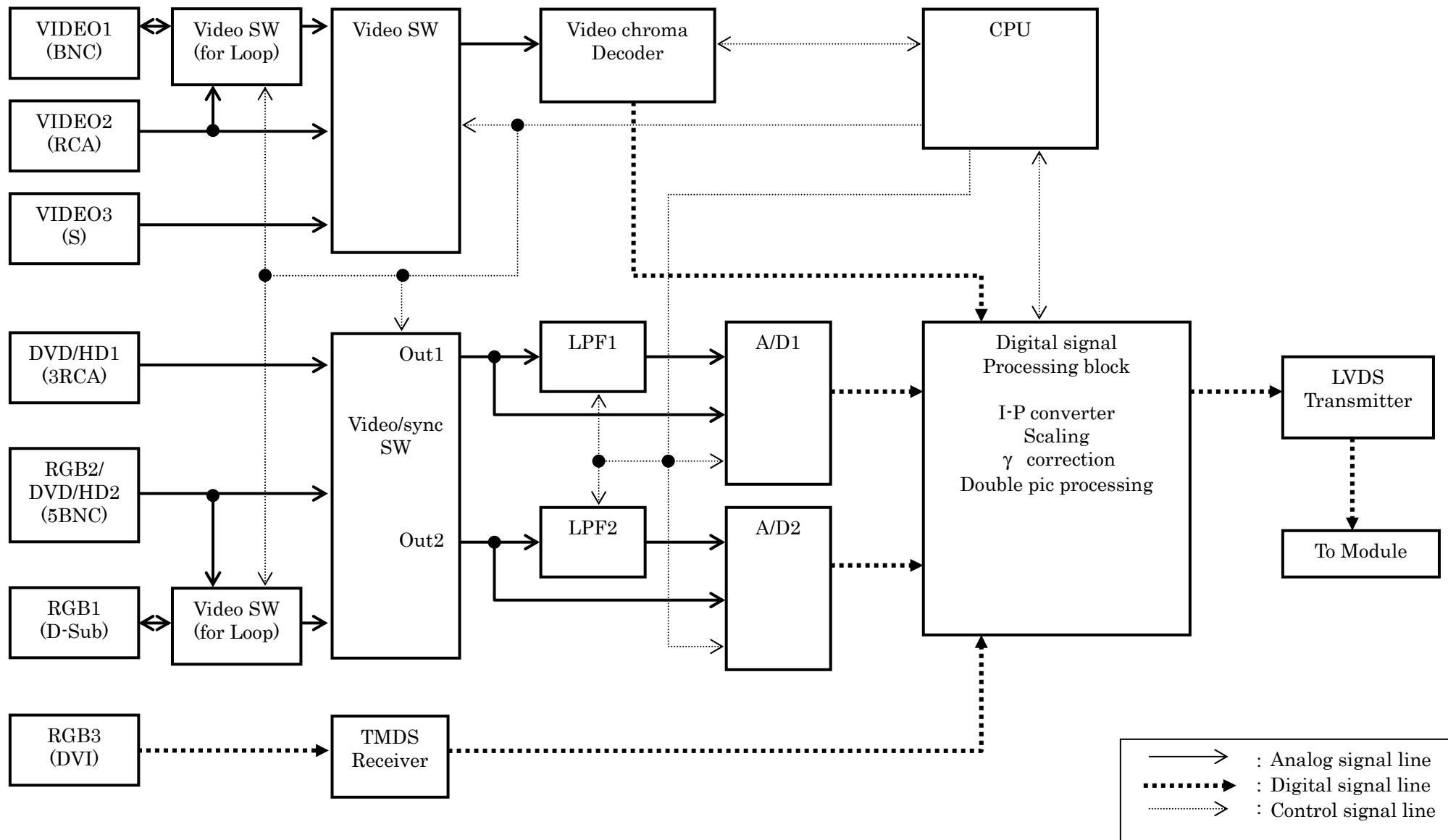
NamePin No.Pin nameFunction				Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)								Signal direction	
				AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★			
					No signal	With signal							
				42XM3 42XR3 50XM4 50XR4 61XM3 61XR3	0V during normal fan operation; 3.3V dc while the fan is stopped.	0V during normal fan operation; 3.3V dc while the fan is stopped.	0	0	0		FAN--MAIN		
FB	1	FAN-CTL	Voltage-controllable power supply	42VM5 42VP5 42VR5	-	-	-	-	-	-	-	-	
				42XM3 42XR3	011.5Vdc during high-speed revolution (Fan mode H); 8.5Vdc during medium speed revolution (Fan mode M); 6.5Vdc during low-speed revolution (Fan mode L)	11.5Vdc during high-speed revolution (Fan mode H); 8.5Vdc during medium speed revolution (Fan mode M); 6.5Vdc during low-speed revolution (Fan mode L)	0	0	0	-	MAIN--FAN		
				50XM4 50XR4	011.6Vdc during high-speed revolution (Fan mode H); 7.8Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	11.6Vdc during high-speed revolution (Fan mode H); 7.8Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	-			
				61XM3 61XR3	09.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	-			
				2	GND	GND		0	0	0	0	0	0
3	ALARM	FAN lock detect signal output	42VM5 42VP5 42VR5	-	-	-	-	-	-	-	-	-	
			42XM3 42XR3 50XM4 50XR4 61XM3 61XR3	00V during normal fan operation; 3.3V dc while the fan is stopped.	0V during normal fan operation; 3.3V dc while the fan is stopped.	0	0	0	-	FAN--MAIN			
FC	1	FAN-CTL	Voltage-controllable power supply	42VM5 42VP5 42VR5 42XM3 42XR3 50XM4 50XR4	-	-	-	-	-	-	-	-	
				61XM3 61XR3	09.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	9.3Vdc during high-speed revolution (Fan mode H); 7.6Vdc during medium speed revolution (Fan mode M); 5.3Vdc during low-speed revolution (Fan mode L)	0	0	0	-	FAN--MAIN		
				2	GND	GND		0	0	0	0	0	0
3	ALARM	FAN lock detect signal output	42VM5 42VP5 42VR5 42XM3 42XR3 50XM4 50XR4	-	-	-	-	-	-	-	-	-	
			61XM3 61XR3	00V during normal fan operation; 3.3V dc while the fan is stopped.	0V during normal fan operation; 3.3V dc while the fan is stopped.	0	0	0	-	FAN--MAIN			
			2	GND	GND		0	0	0	0	0	0	-
AD	1	GND	GND		0	0	0	0	0	0	-	-	
	2	GND	GND		0	0	0	0	0	0	-	-	
	3	ALARM	Module alarm signal		05Vdc during normal PDP operation; 0V when the PDP is out of order.	5Vdc during normal PDP operation; 0V when the PDP is out of order.	0	0	0	-	PDP--MAIN		
	4	GND	GND		00	0	0	0	0	0	-	-	

Name	Pin No.	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
					No signal	With signal					
	5	PS+	PSS input PS+	0	PSS LVDS serial differential PS+ input 0Vac; Bias 1.1Vdc	PSS LVDS serial differential PS+ input 0.3Vac; Bias 1.25Vdc	0	0	0	-	PDP--MAIN
	6	PS-	PSS input PS-	0	PSS LVDS serial differential PS+ input 0Vac; Bias 1.4Vdc	PSS LVDS serial differential PS+ input 0.3Vac; Bias 1.25Vdc	0	0	0	-	PDP--MAIN
	7	MSEL	42V5 compatible interface OFF	0	0	0	0	0	0	-	-
	8	GND	GND	0	0	0	0	0	0	-	-
	9	RH+	OSD system output H+	0	OSD LVDS serial differential H+ output 0Vac; Bias 1.1Vdc	OSD LVDS serial differential H+ output 0Vac; Bias 1.1Vdc	0	0	0	-	MAIN--PDP
	10	RH-	OSD system output H-	0	OSD LVDS serial differential H- output 0Vac; Bias 1.4Vdc	OSD LVDS serial differential H- output 0Vac; Bias 1.4Vdc	0	0	0	-	MAIN--PDP
	11	RG+	OSD system output G+	0	OSD LVDS serial differential G+ output 0.3Vac; Bias 1.25Vdc	OSD LVDS serial differential G+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	12	RG-	OSD system output G-	0	OSD LVDS serial differential G- output 0.3Vac; Bias 1.25Vdc	OSD LVDS serial differential G- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	13	RF+	Mode system output F+	0	Video mode LVDS serial differential F+ output 0.3Vac; Bias 1.25Vdc	Video mode LVDS serial differential F+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	14	RF-	Mode system output F-	0	Video mode LVDS serial differential F- output 0.3Vac; Bias 1.25Vdc	Video mode LVDS serial differential F- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	15	GND	GND	0	0	0	0	0	0	-	-
	16	RE+	Video system output E+	0	Video mode LVDS serial differential E+ output 0Vac; Bias 1.1Vdc	Video mode LVDS serial differential E+ output 0Vac; Bias 1.1Vdc * Only for the PX-42VP4 Series, 0.3Vac and bias 1.25Vdc in theater mode when 60Hz motion pictures are displayed.	0	0	0	-	MAIN--PDP
	17	RE-	Video system output E-	0	Video mode LVDS serial differential E- output 0Vac; Bias 1.4Vdc	Video mode LVDS serial differential E- output 0.3Vac; Bias 1.25Vdc * Only for the PX-42VP4 Series, 0.3Vac and bias 1.25Vdc in theater mode when 60Hz motion pictures are displayed.	0	0	0	-	MAIN--PDP
	18	RD+	Video system output D+	0	Video mode LVDS serial differential D+ output 0Vac; Bias 1.1Vdc	Video mode LVDS serial differential D+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	19	RD-	Video system output D-	0	Video mode LVDS serial differential D- output 0Vac; Bias 1.4Vdc	Video mode LVDS serial differential D- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP

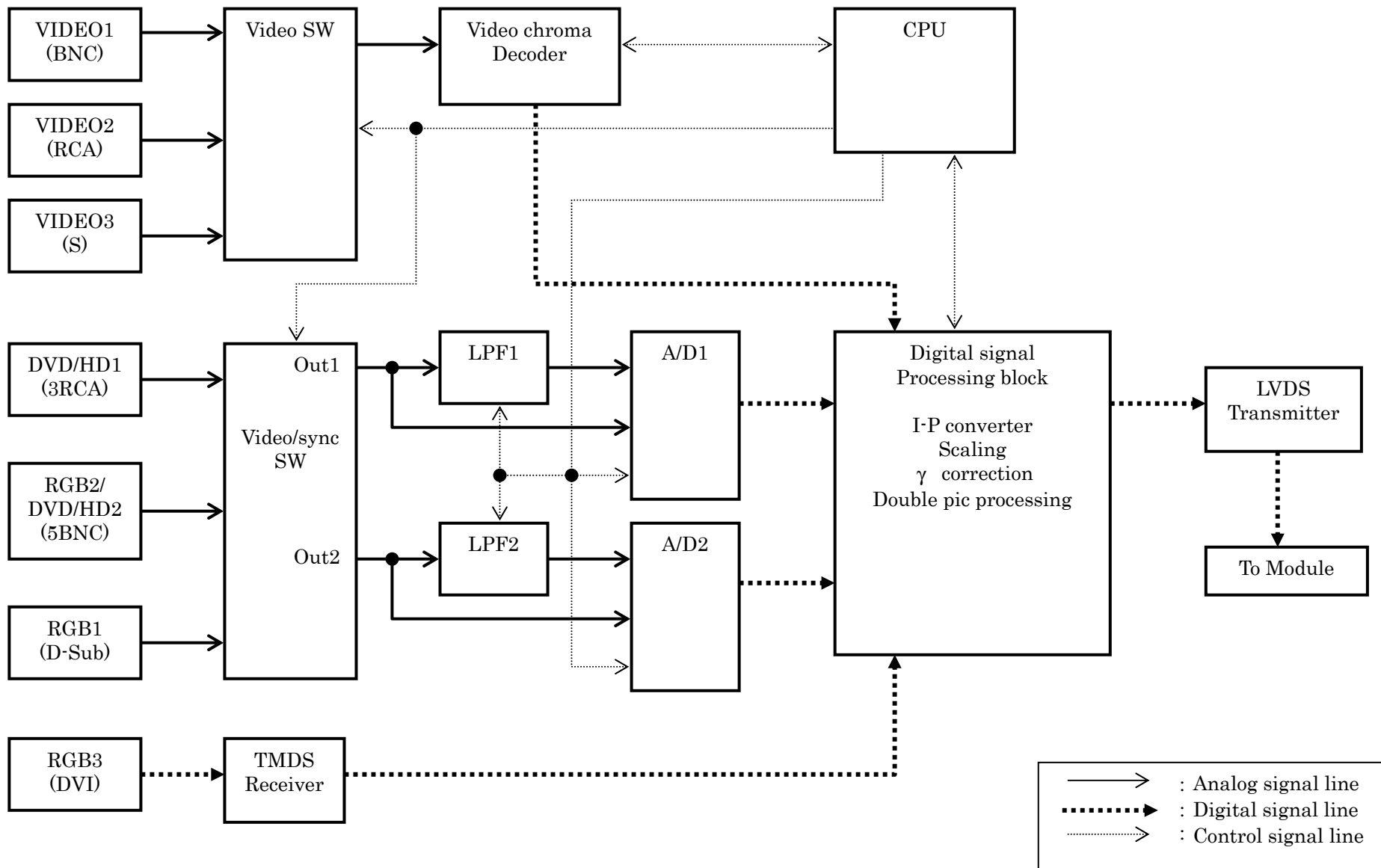
Name	Pin No.	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★	
					No signal	With signal					
	20	RCLK+	Video system output clock+	0	Video data clock LVDS serial differential clock+ output 0.3Vac; Bias 1.25Vdc	Video data clock LVDS serial differential clock+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	21	RCLK-	Video system output clock--	0	Video data clock LVDS serial differential clock- output 0.3Vac; Bias 1.25Vdc	Video data clock LVDS serial differential clock- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	22	GND	GND	0	0	0	0	0	0	-	-
	23	RC+	Video system output C+	0	Video data LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc	Video data LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	24	RC-	Video system output C--	0	Video data LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc	Video data LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	25	RB+	Video system output B+	0	Video data LVDS serial differential B+ output 0Vac; Bias 1.1Vdc	Video data LVDS serial differential B+ output 0Vac; Bias 1.1Vdc	0	0	0	-	MAIN--PDP
	26	RB-	Video system output B--	0	Video data LVDS serial differential B- output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential B- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	27	RA+	Video system output A+	0	Video data LVDS serial differential A+ output 0Vac; Bias 1.1Vdc	Video data LVDS serial differential A+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	28	RA-	Video system output A--	0	Video data LVDS serial differential A- output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential A- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN--PDP
	29	GND	GND	0	0	0	0	0	0	-	-
	30	GND	GND	0	0	0	0	0	0	-	-
	31	GND	GND	0	0	0	0	0	0	-	-
LD	1	REMIN1	Infrared remote control data	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	-	LED--PWR
	2	LEDCTL1	Standby red LED control	0	0	0	3.3	3.3	0	-	PWR--LED
	3	LEDCTL2	POWER ON green LED control	0	3.3	3.3	0	0	0	-	PWR--LED
	4	GND	GND	0	0	0	0	0	0	-	-
	5	M+5V	5V power supply for microcomputer	0	5	5	5	5	0	-	PWR--LED
	1	SW7	Power start control	0	6.8	6.8	6.8	6.8	0	-	PW--MAIN
	2	POIN	Power start detection	0	3.3	3.3	3.3	3.3	0	-	PW--MAIN
	3	GND	GND	0	0	0	0	0	0	-	-
PW	4	M+5V	5V power supply for microcomputer	0	5	5	5	5	0	-	MAIN--PW
	5	M+7V	7V power supply for microcomputer	0	6.8	6.8	6.8	6.8	6.8	-	MAIN--PW
	6	REMIN1	Infrared remote control data	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	-	PW--MAIN
	7	LEDCTL1	Standby red LED control	0	0	0	3.3	3.3	0	-	MAIN--PW
	8	LEDCTL2	POWER ON green LED control	0	3.3	3.3	0	0	0	-	MAIN--PW
	1	CTL1	Key input detection	0	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0	-	SW--MAIN
	2	CTL2	Key input detection	0	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputs are entered.	0	-	SW--MAIN
	3	GND	GND	0	0	0	0	0	0	-	-
PA	1	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER--AUDIO
	2	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER--AUDIO
	3	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER--AUDIO
	4	GND	GND	0	0	0	0	0	0	-	-

Name	Pin No.	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction	
				AC power ON (Power cord connected to the wall outlet) ★★	Main power ON (POWER button ON) ★		Power management ★★	Standby ★★★	Main power OFF ★★	AC power OFF (Power cord pulled out of the wall outlet) ★★		
					No signal	With signal						
PD	5	GND	GND		0	0	0	0	0	0	-	-
	6	GND	GND		0	0	0	0	0	0	-	-
	1	ALARM	PDP alarm signal	42VM5 42VP5 42VR5 42XM3 42XR3 50XM4 50XR4	0	5Vdc when the PDP is normal; 0V when it is abnormal.	5Vdc when the PDP is normal; 0V when it is abnormal.	0	0	0	-	PDP→POWER
	2	D.GND	GND		0	0	0	0	0	0	-	-
	3	D.GND	GND		0	0	0	0	0	0	-	-
	4	D.GND	GND		0	0	0	0	0	0	-	-
	5	D.GND	GND		0	0	0	0	0	0	-	-
	6	D+60	Vd power supply for PDP		0	60Vdc (changeable according to the PDP)	60Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	7	D+60	digital circuits		0	60Vdc (changeable according to the PDP)	60Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	8	NC	digital circuits		-	-	-	-	-	-	-	-
	9	D+170	Vs power supply for PDP high-voltage circuits		0	170Vdc (changeable according to the PDP)	170Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	10	D+170	Vs power supply for PDP high-voltage circuits		0	170Vdc (changeable according to the PDP)	170Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	1	ALARM	PDP alarm signal	61XM3 61XR3	0	5Vdc when the PDP is normal; 0V when it is abnormal.	5Vdc when the PDP is normal; 0V when it is abnormal.	0	0	0	-	PDP→POWER
	2	D.GND	GND		0	0	0	0	0	0	-	-
3	D.GND	GND		0	0	0	0	0	0	-	-	
4	D+5	5V power supply for digital circuits		0	5.15	5.15	0	0	0	-	POWER→PDP	
5	D.GND	GND		0	0	0	0	0	0	-	-	
6	D.GND	GND		0	0	0	0	0	0	-	-	
7	D+65	Vd power supply for PDP		0	65Vdc (changeable according to the PDP)	65Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP	
8	NC	digital circuits		-	-	-	-	-	-	-	-	
9	D+175	Vs power supply for PDP high-voltage circuits		0	175Vdc (changeable according to the PDP)	175Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP	
10	D+175	Vs power supply for PDP high-voltage circuits		0	175Vdc (changeable according to the PDP)	175Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP	
PH	1	D+5	5V power supply for digital circuits	42VM5 42VP5 42VR5 42XM3 42XR3 50XM4 50XR4	0	5.15	5.15	0	0	0	-	POWER→PDP
	2	D+5	5V power supply for digital circuits		0	5.15	5.15	0	0	0	-	POWER→PDP
	3	D.GND	GND		0	0	0	0	0	0	-	-
	4	D.GND	GND		0	0	0	0	0	0	-	-
	1	D+175	Vs power supply for PDP high-voltage circuits	61XM3 61XR3	0	175Vdc (changeable according to the PDP)	175Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	2	D+175	Vs power supply for PDP high-voltage circuits		0	175Vdc (changeable according to the PDP)	175Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	3	NC	Non-connection		-	-	-	-	-	-	-	-
	4	D+65	Vd power supply for PDP		0	65Vdc (changeable according to the PDP)	65Vdc (changeable according to the PDP)	0	0	0	-	POWER→PDP
	5	D.GND	digital circuits		0	0	0	0	0	0	-	-
	6	D.GND	GND		0	0	0	0	0	0	-	-
	7	D+5	5V power supply for digital circuits		0	5.15	5.15	0	0	0	-	POWER→PDP
	8	D.GND	GND		0	0	0	0	0	0	-	-
	9	D.GND	GND		0	0	0	0	0	0	-	-

PX-50XM4/61XM3 Series



PX-50XR4/61XR3 Series



CIRCUIT DIAGRAMS

(PX-50XM4/61XM3 Series)

CONFIDENTIAL

NEC MAIN PWB
PCB-5040

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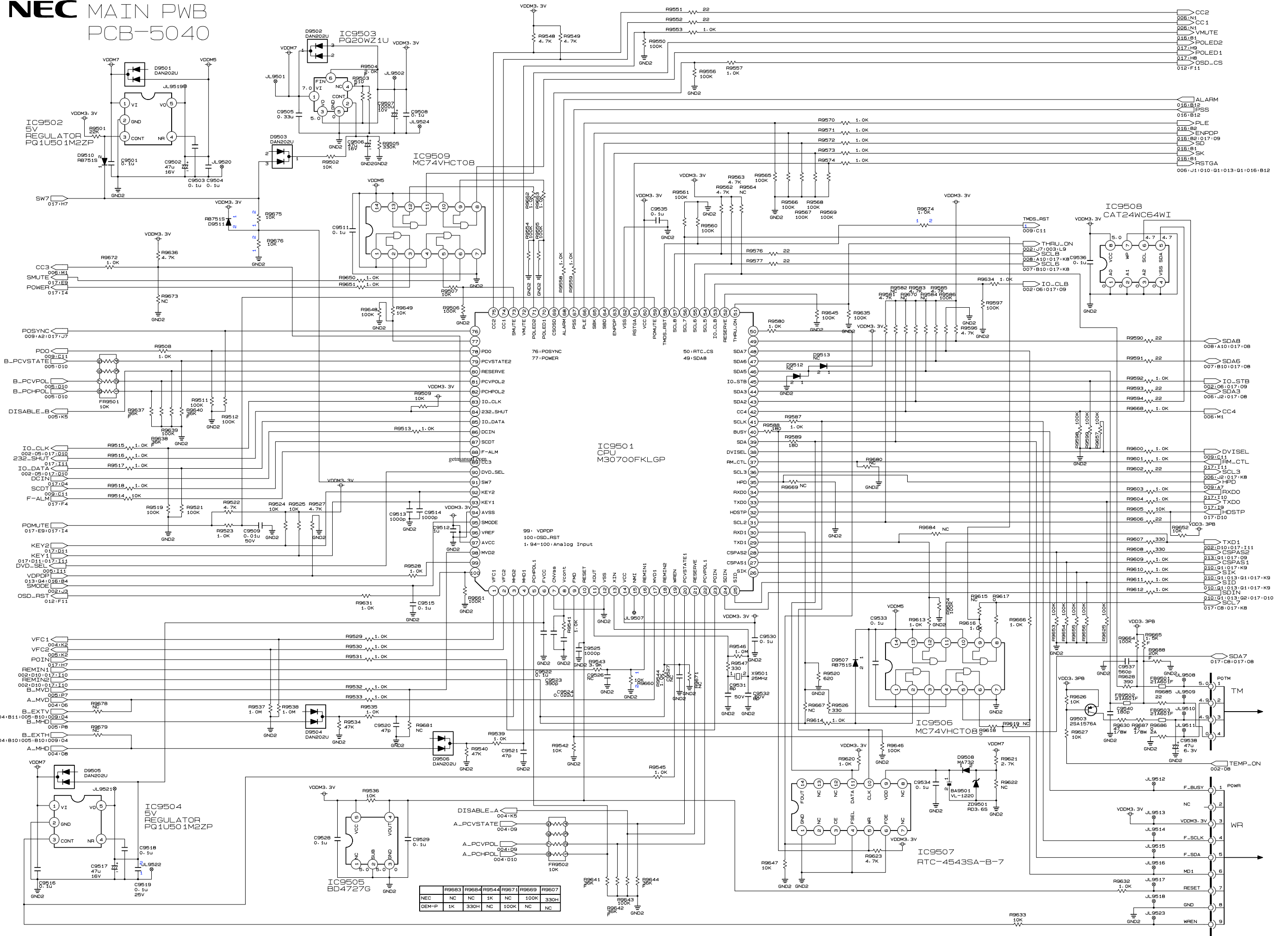
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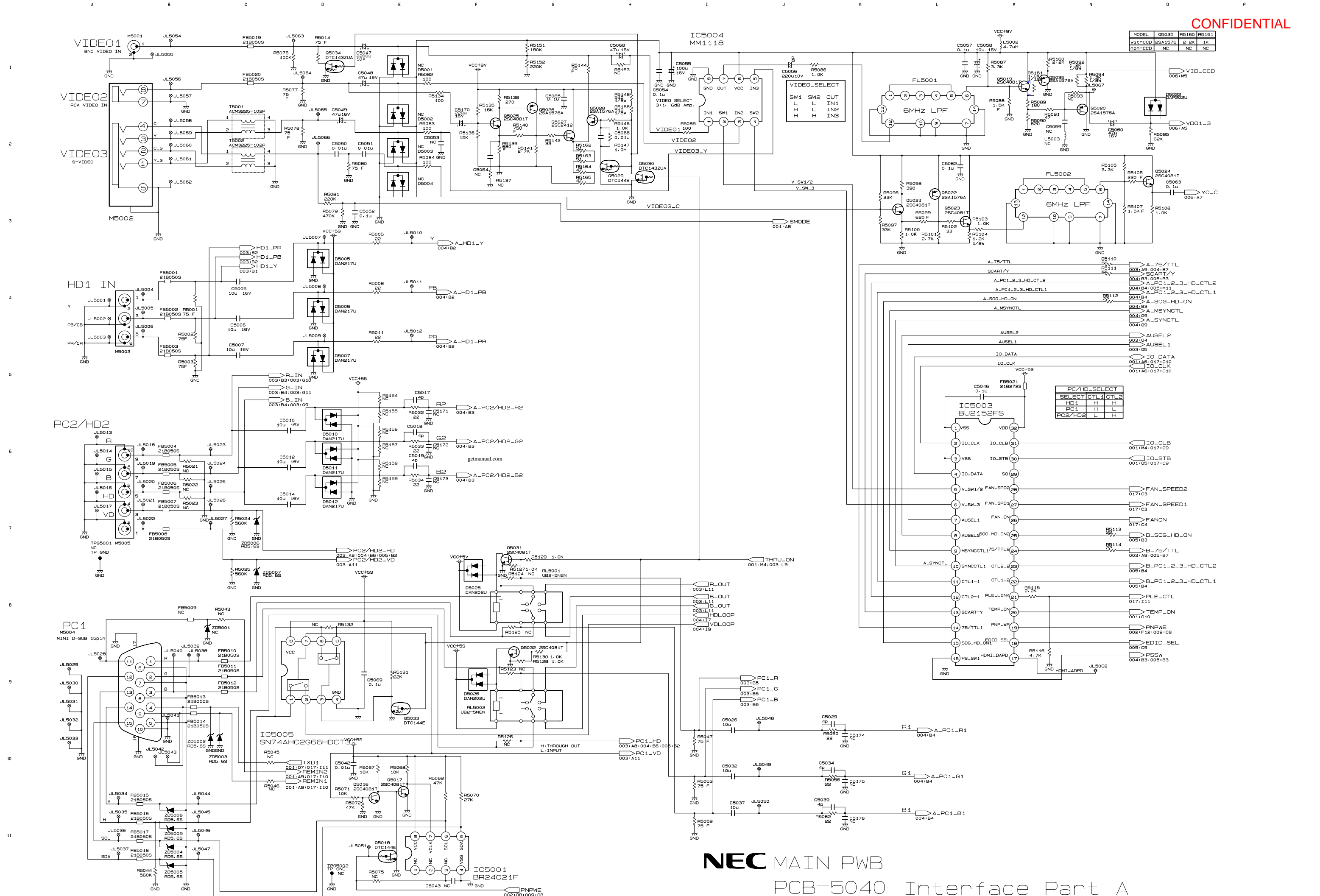
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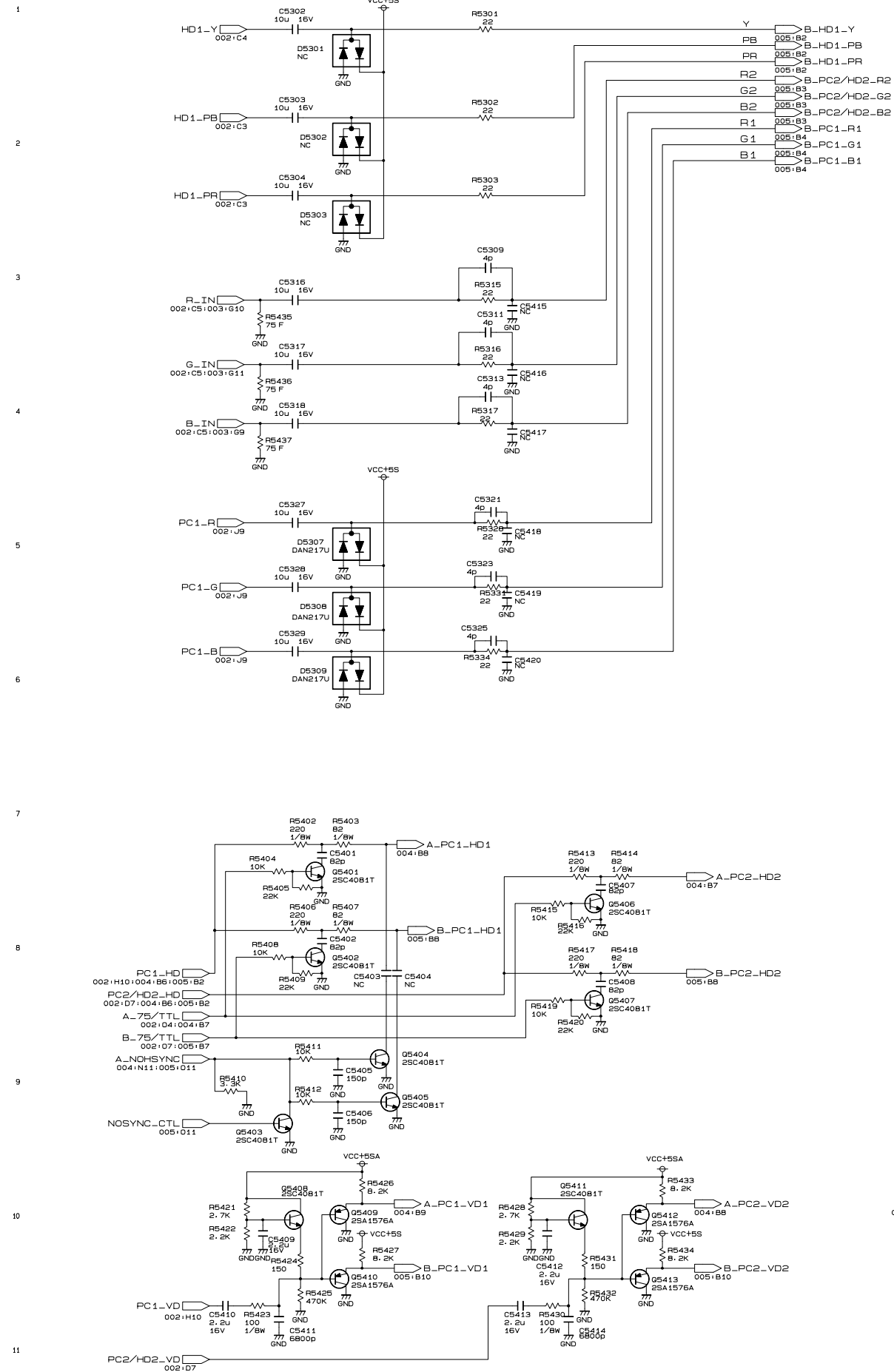
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NEC MAIN PWB
PCB-5040 Interface Part A



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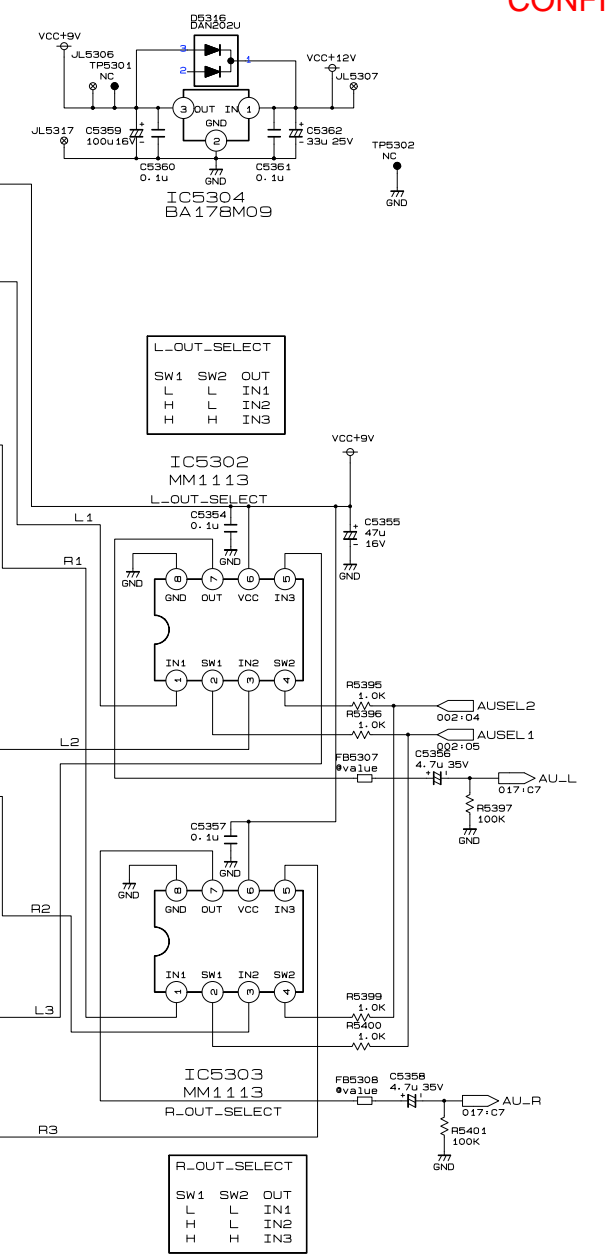
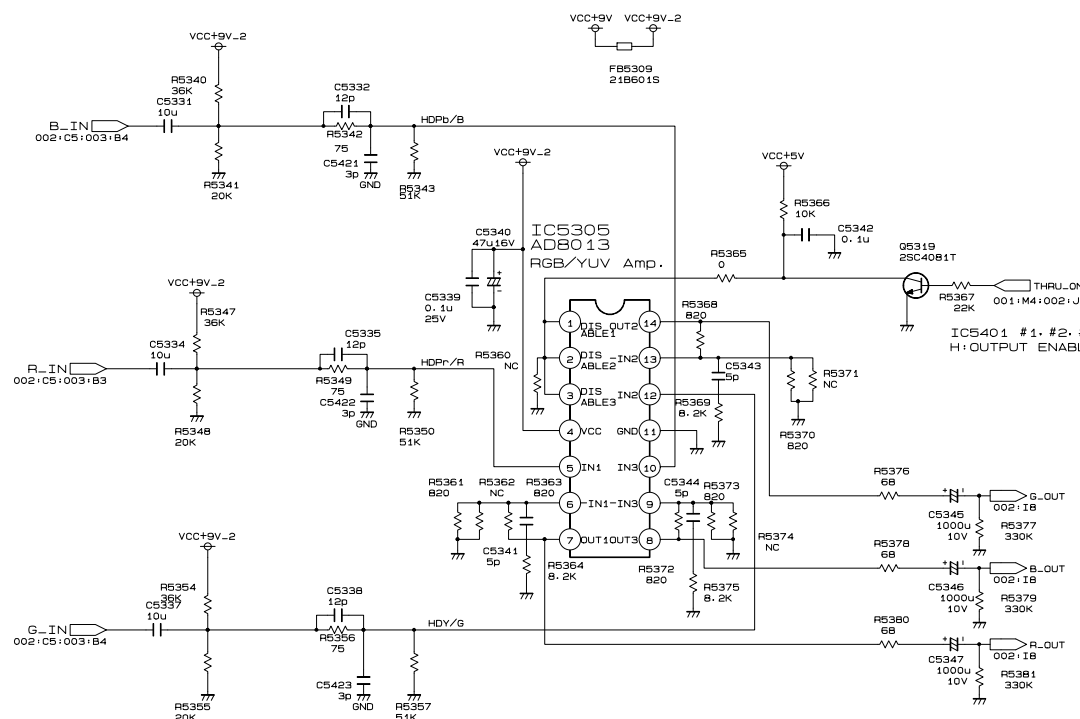
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AUDIO2 (HD)

R IN
L/MONO IN

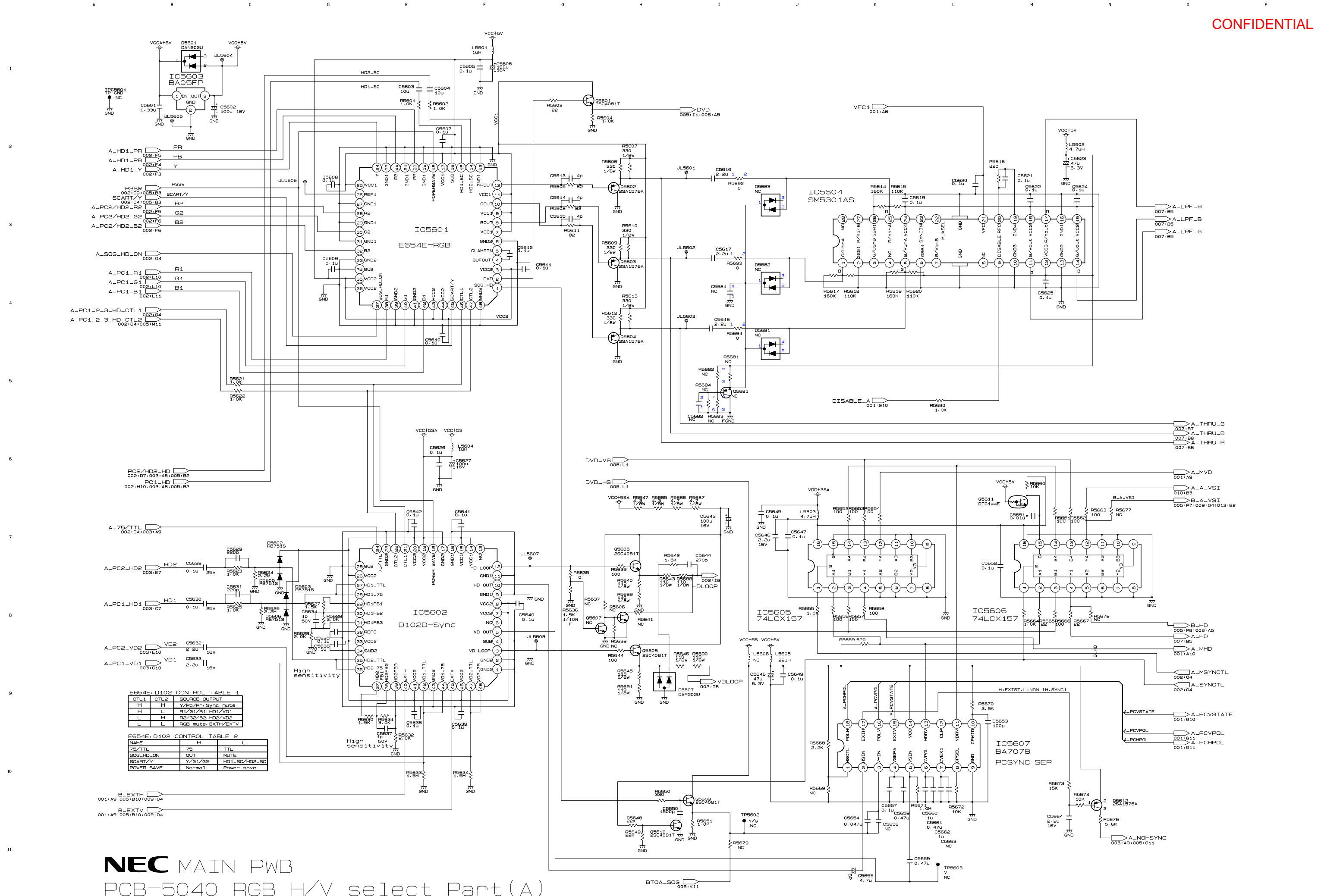
AUDIO3 (PC)

R IN
L/MONO IN

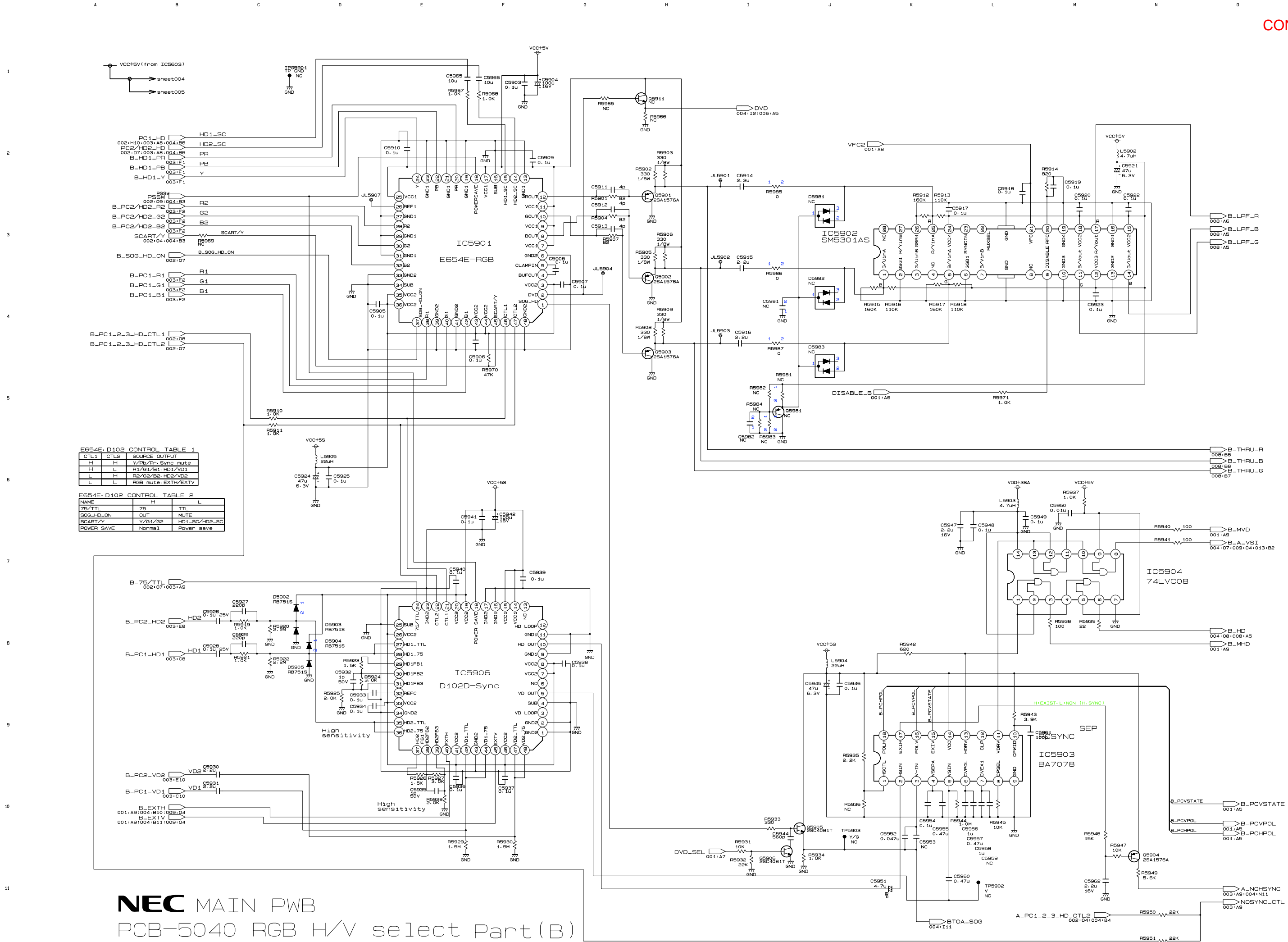


NEC MAIN PWB
PCB-5040

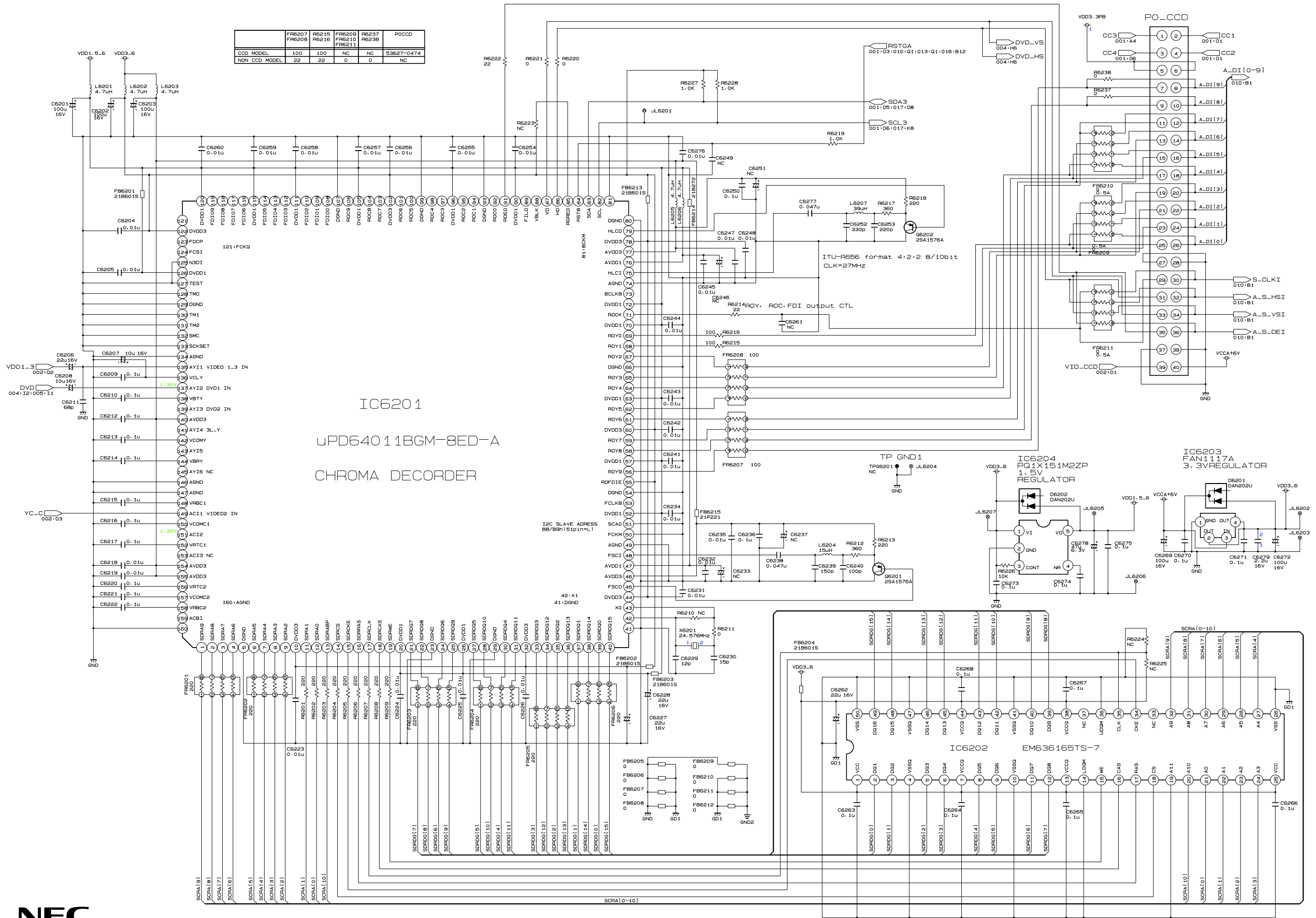
AUDIO
Interface Part B



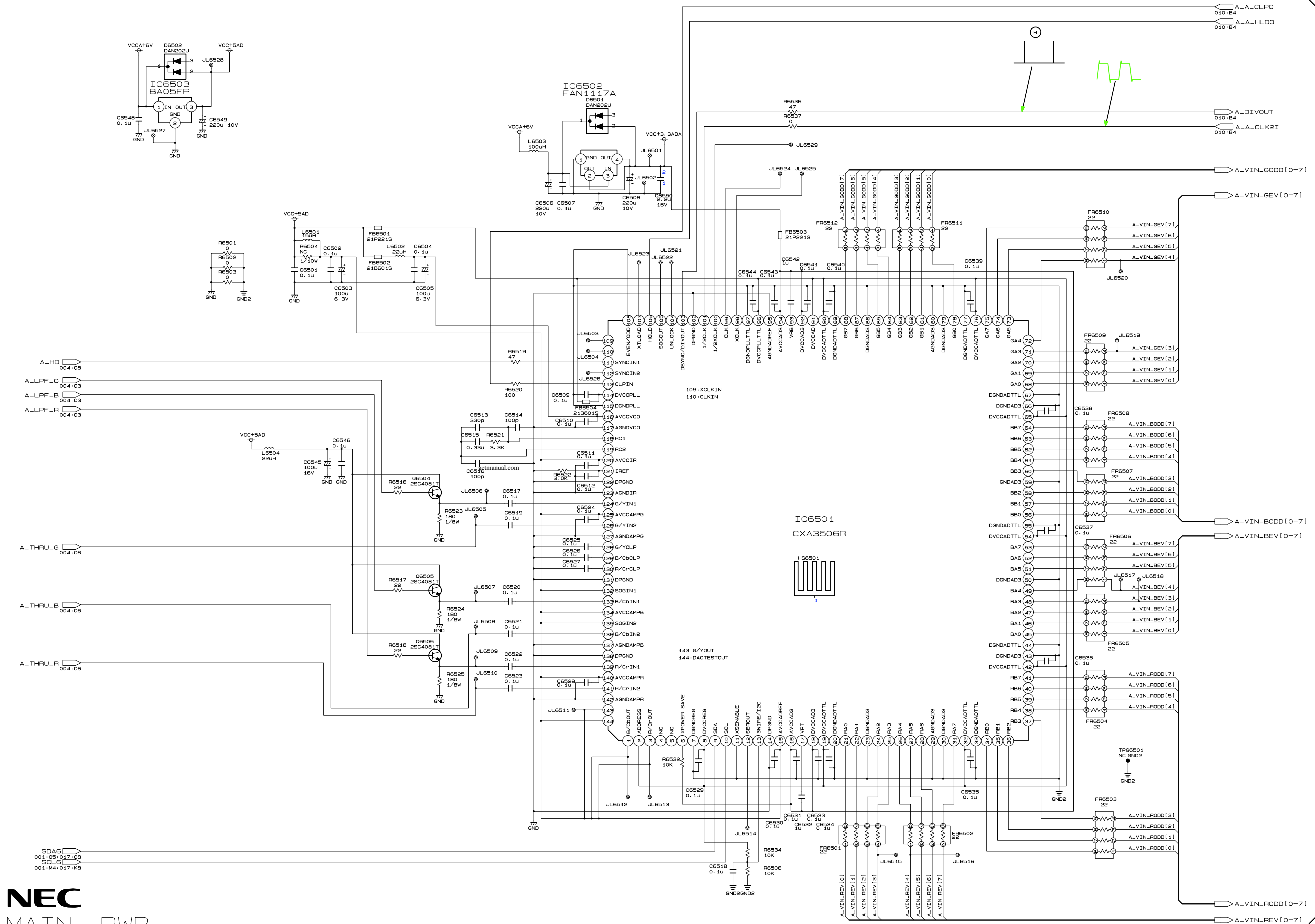
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PCB-5040 RGB H/V select Part(A)



NEC MAIN PWB
PCB-5040 RGB H/V select Part (B)

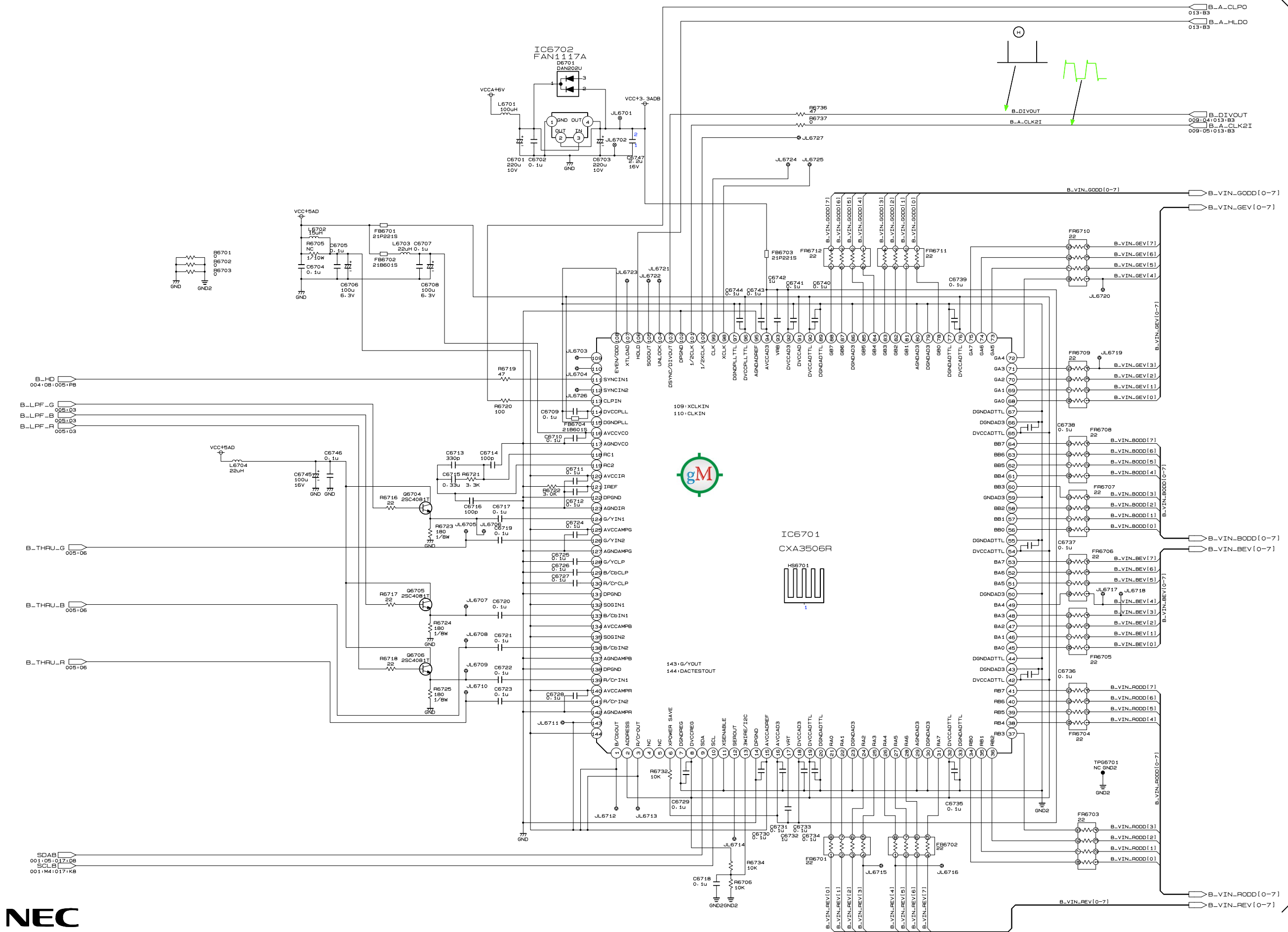


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NEC
MAIN PWB
PCB-5040
A/D Converter Part (A)

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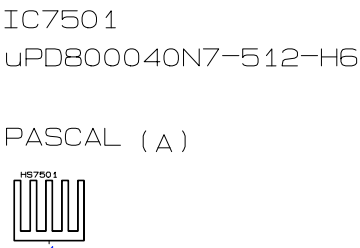
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MAIN PWB
PCB-5040 A/D Part (B)



NEC
MAIN PWB
PCB-5040
DVI Rece

MODEL	IC7001	IC7004	IC7005	G7002, G7003	A7027, A7028	A7029, A7033, A7034, A7035	A7036
non-HDCP	S11161B	-	-	-	-	-	0
HDCP	S11169	74AHC2666	BR24C02	25K1133	24K	0	-



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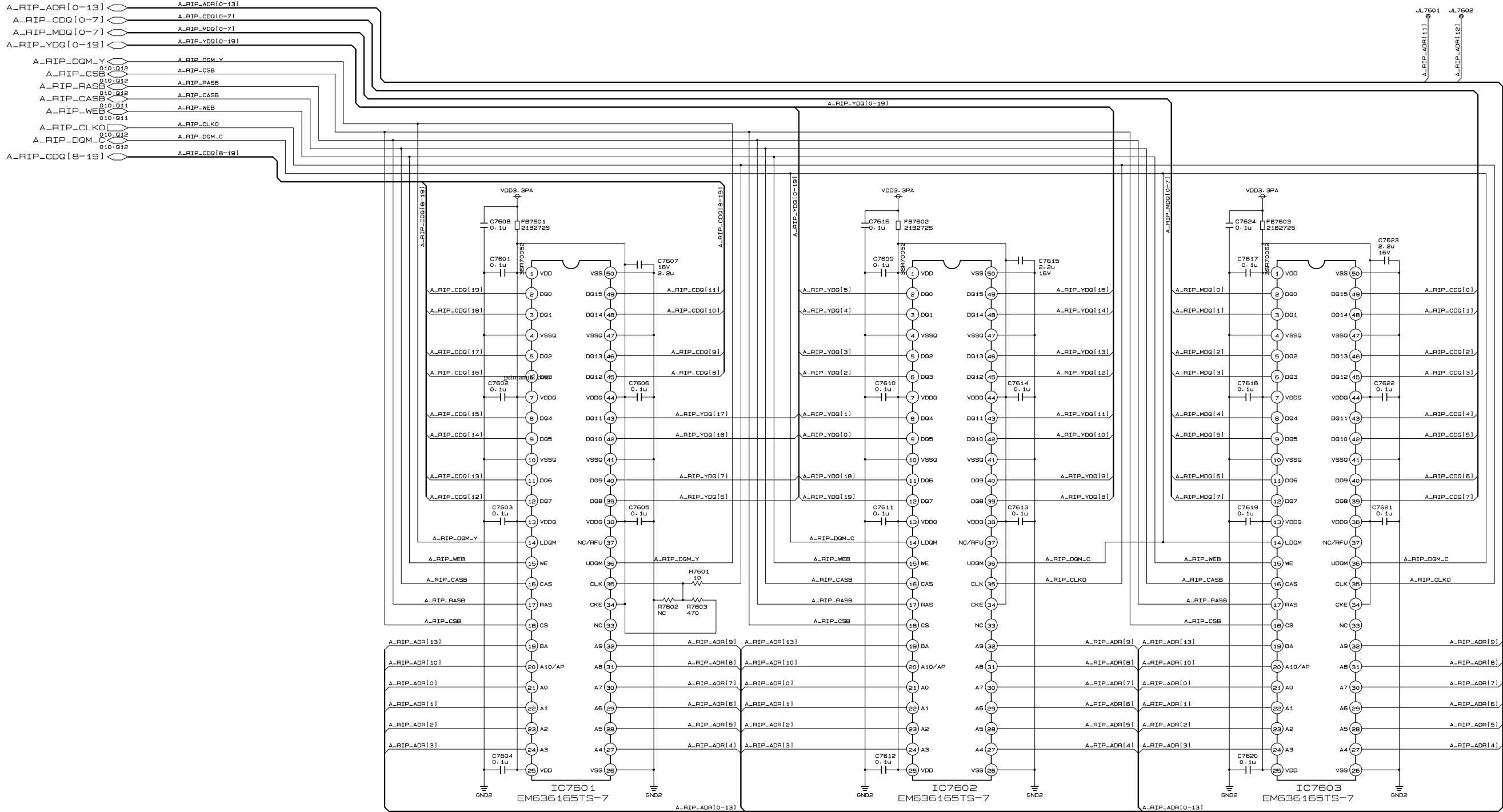
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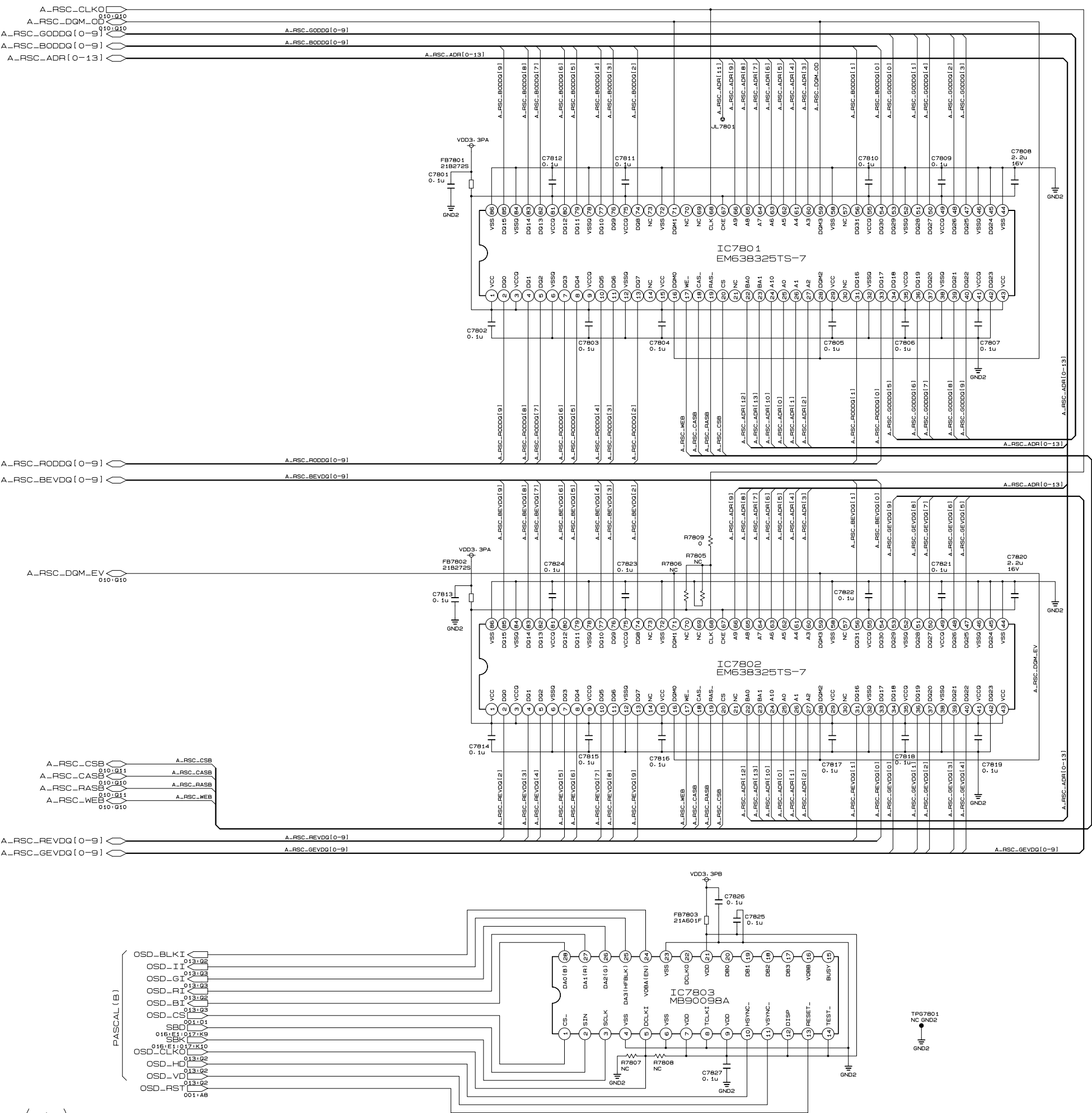
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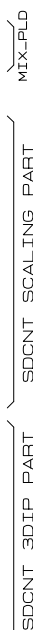
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MAIN PWB PCB-5040
SDCNT 3DIP PART (A)

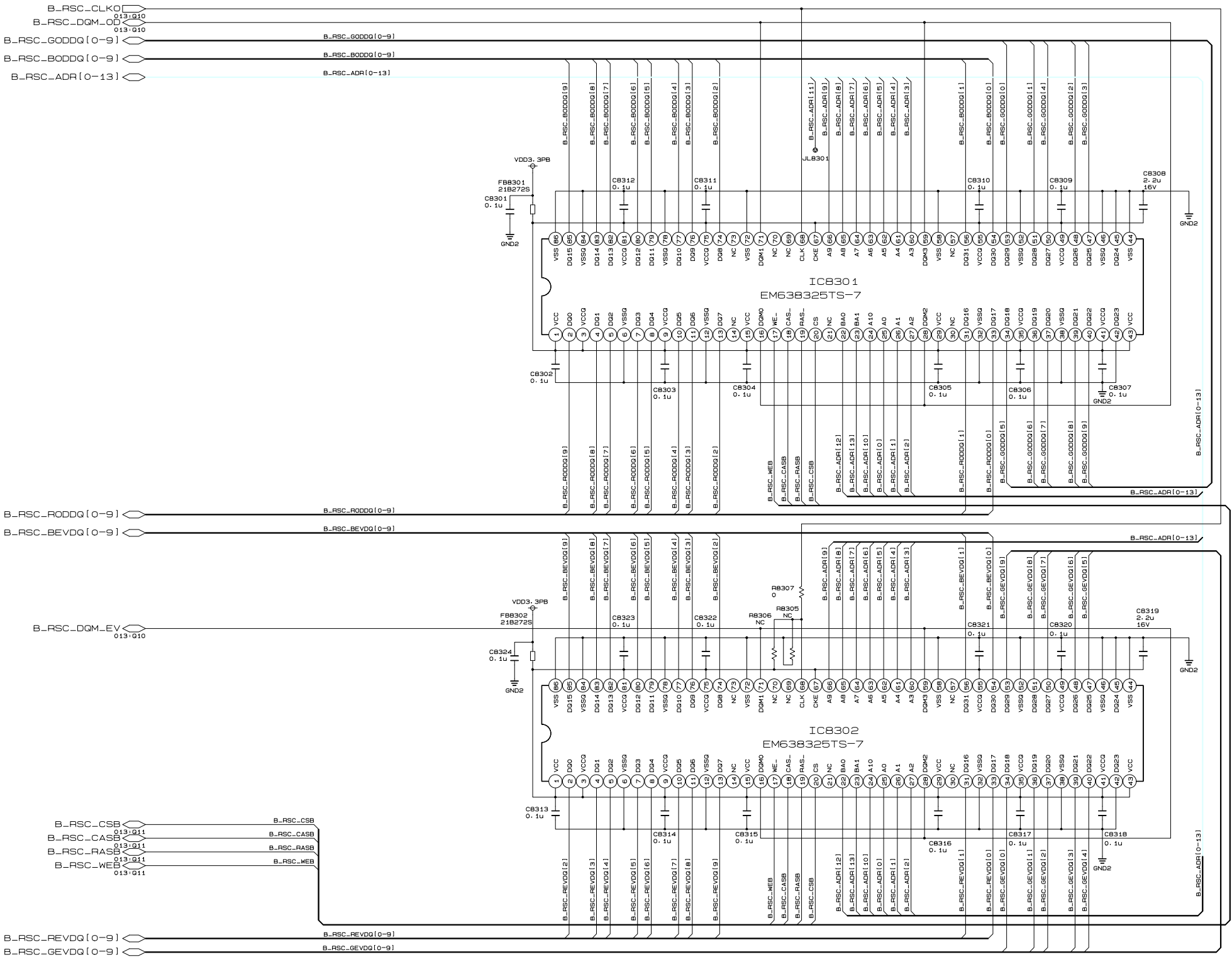




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MAIN PWB PCB-5040
OSD PART
SDCNT SCALING PART (A)

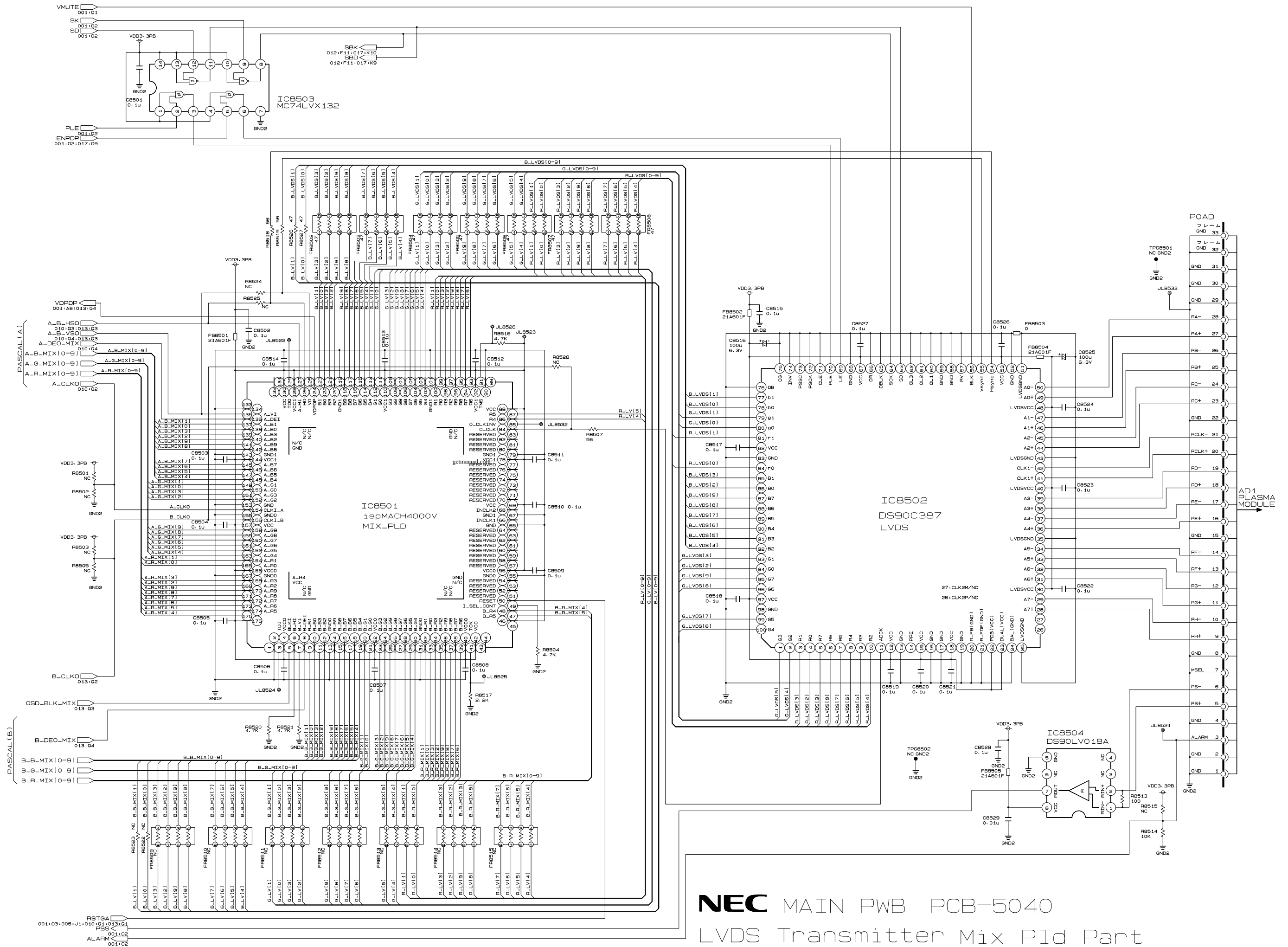




TP68301
NC GND2

NEC

MAIN PWB PCB-5040
SDCNT SCALING PART (B)



NEC MAIN PWB PCB-5040
LVDS Transmitter Mix Pld Part

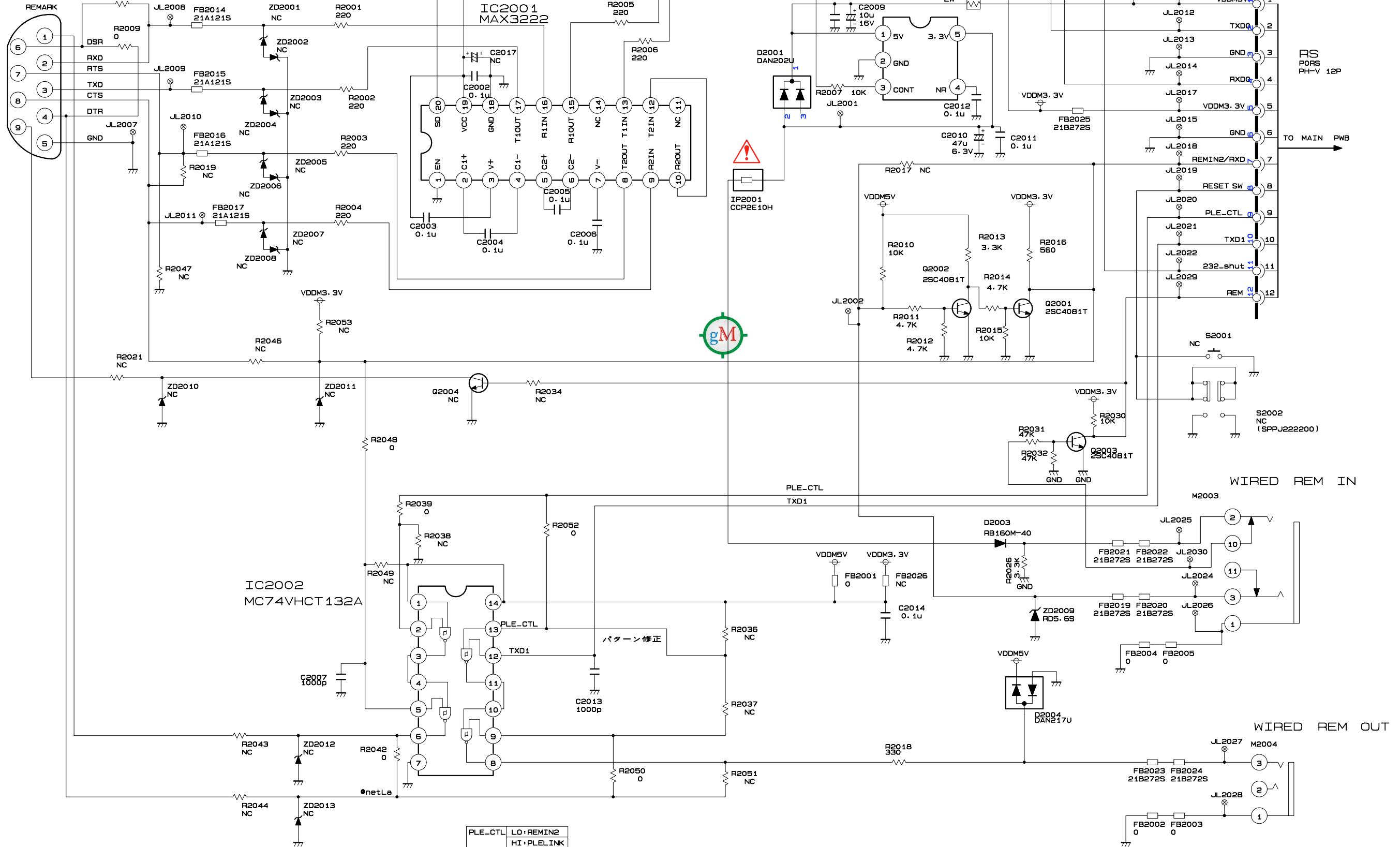
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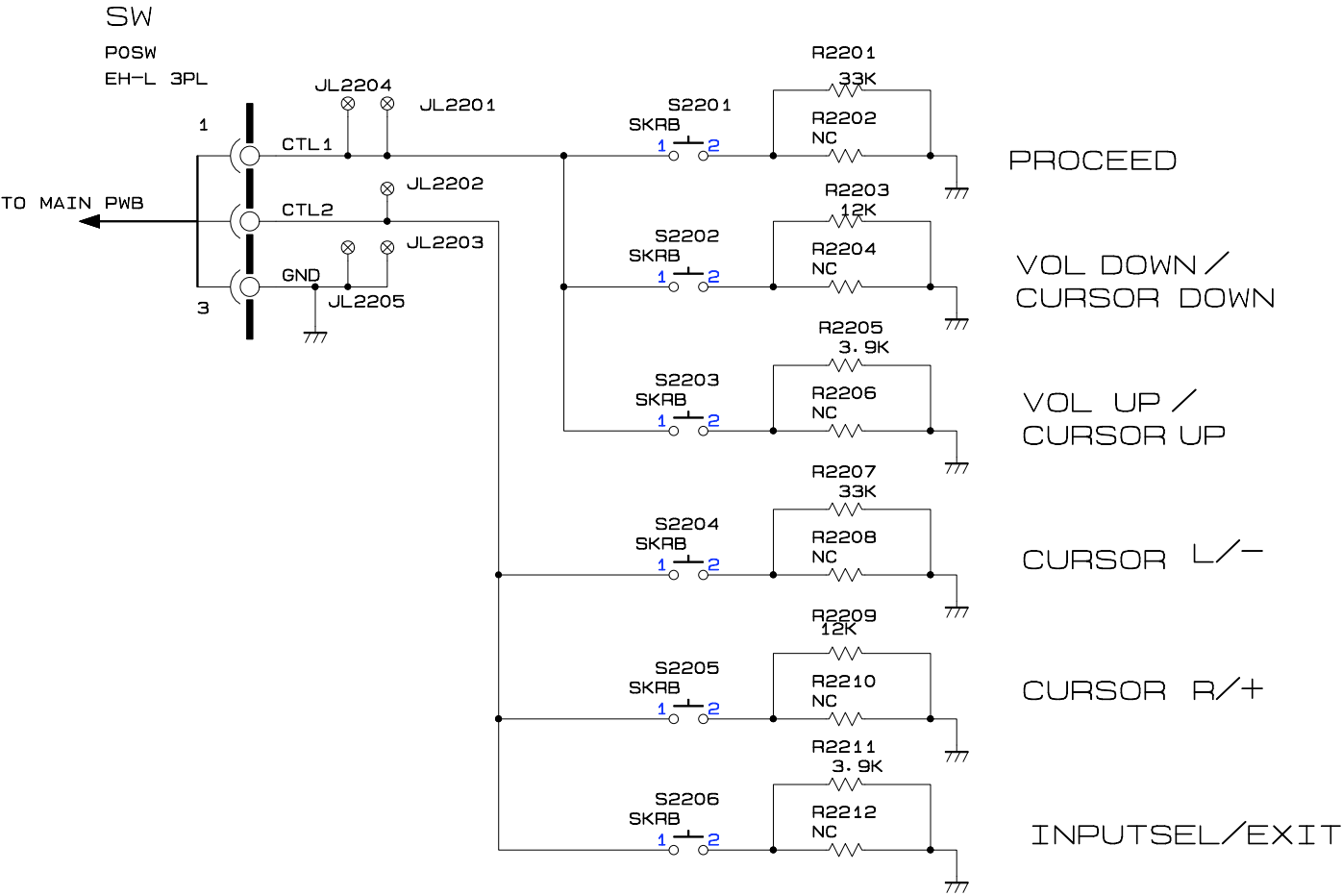
232C PWB PCB-5042A

PC CONTROL

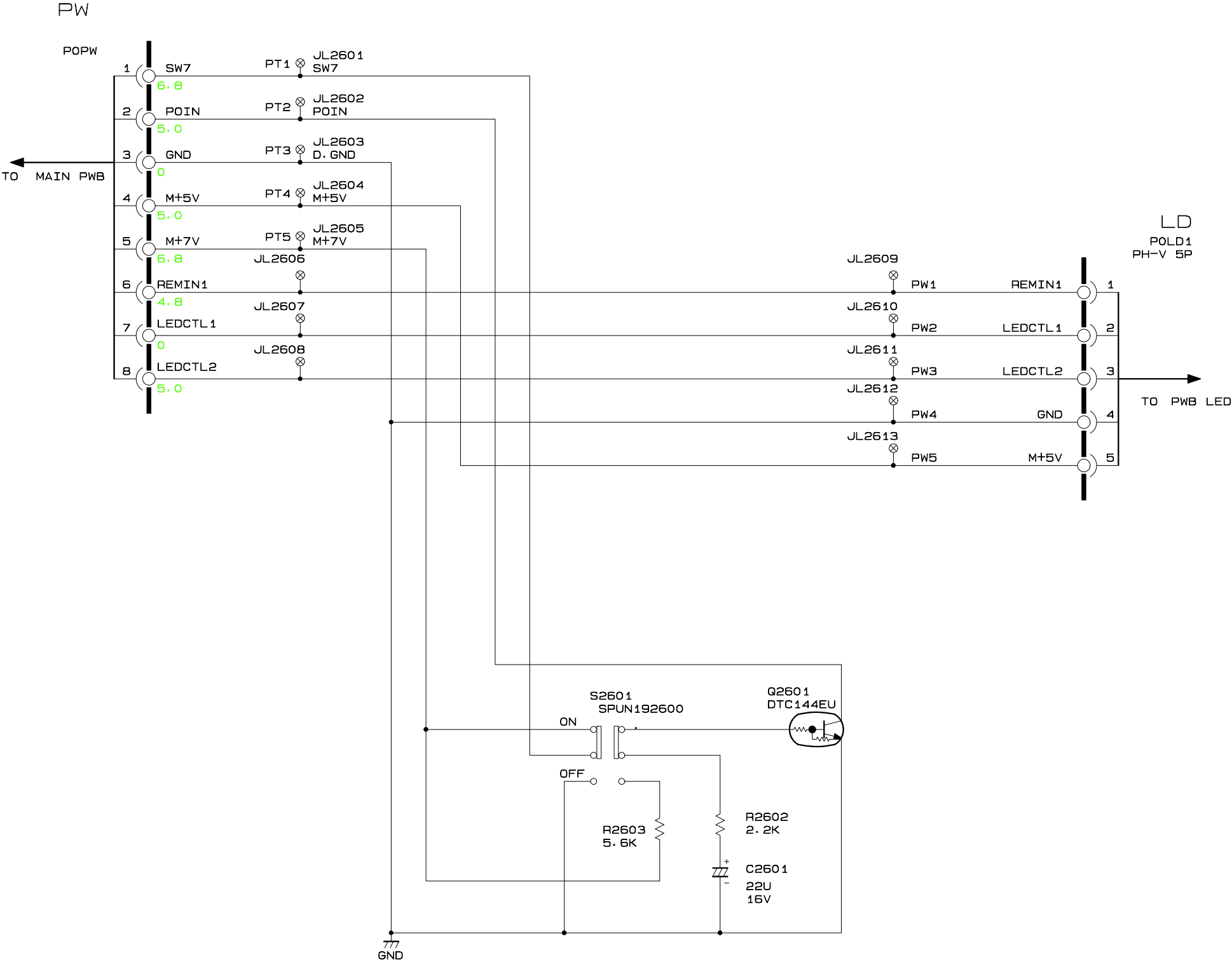
M2002
PJS/PA



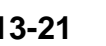
CTL PWB
PCB-5042B



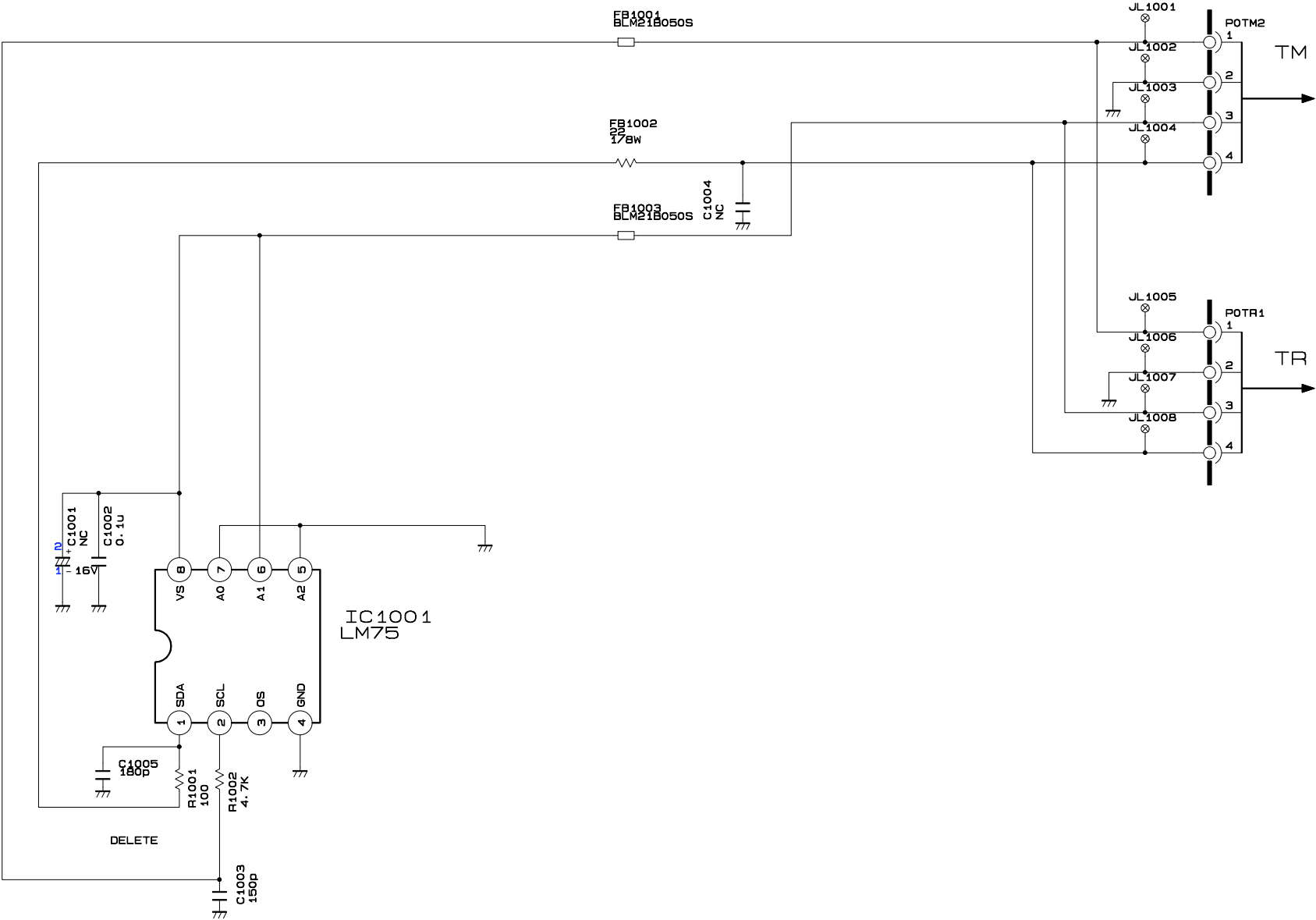
PWR PWB
PCB-5042C



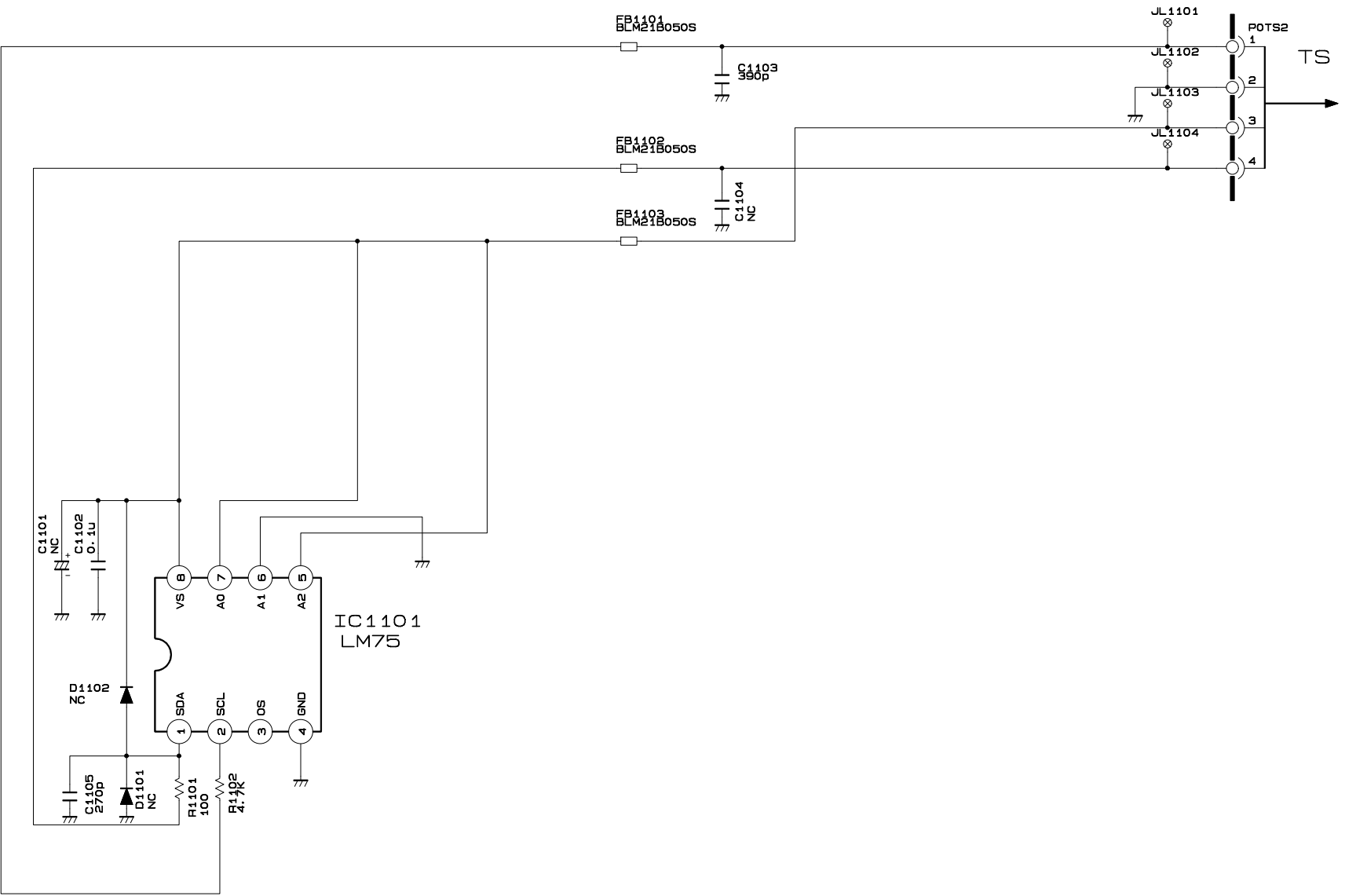
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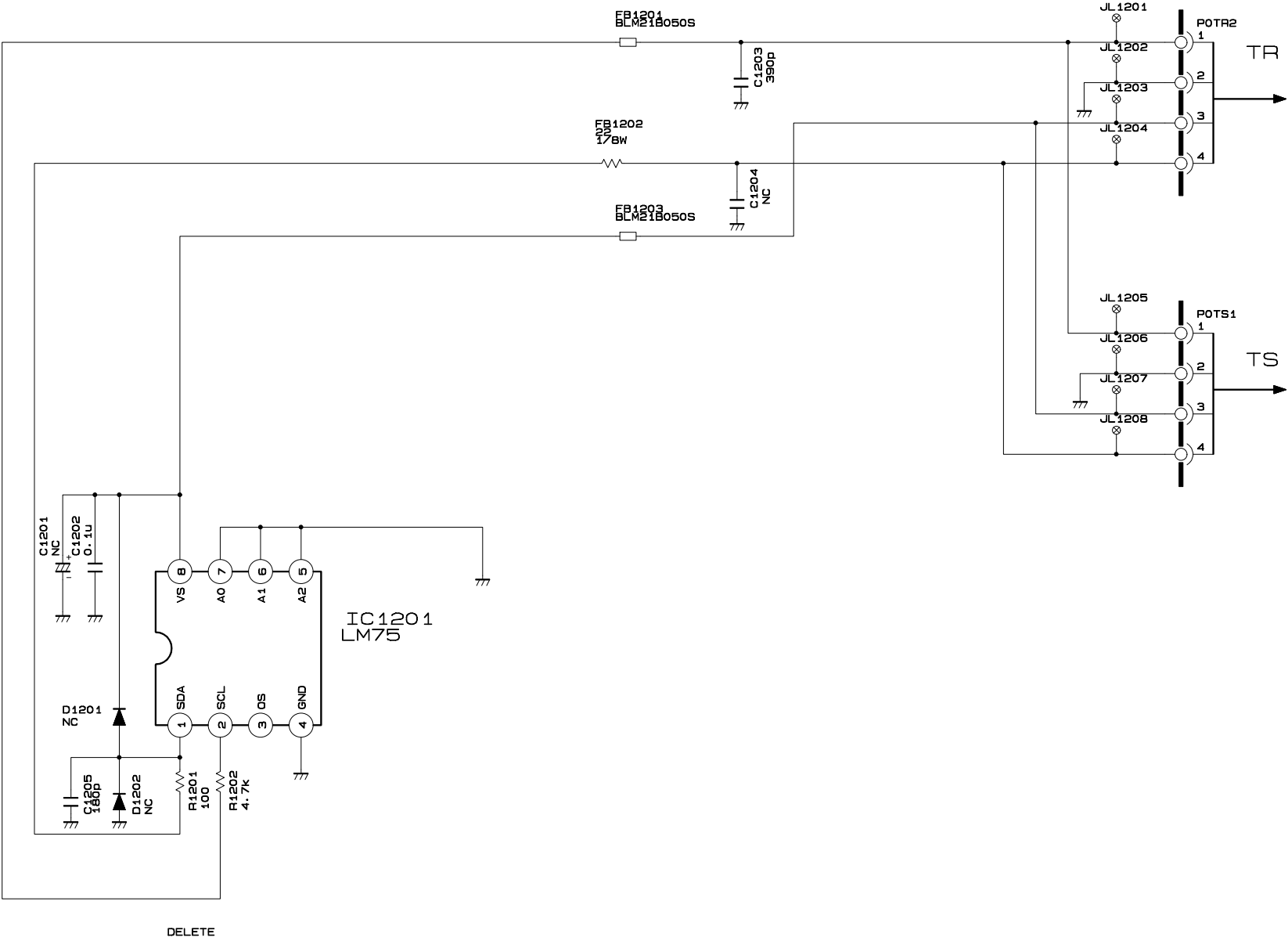
SENB PWB
PCB-5042E



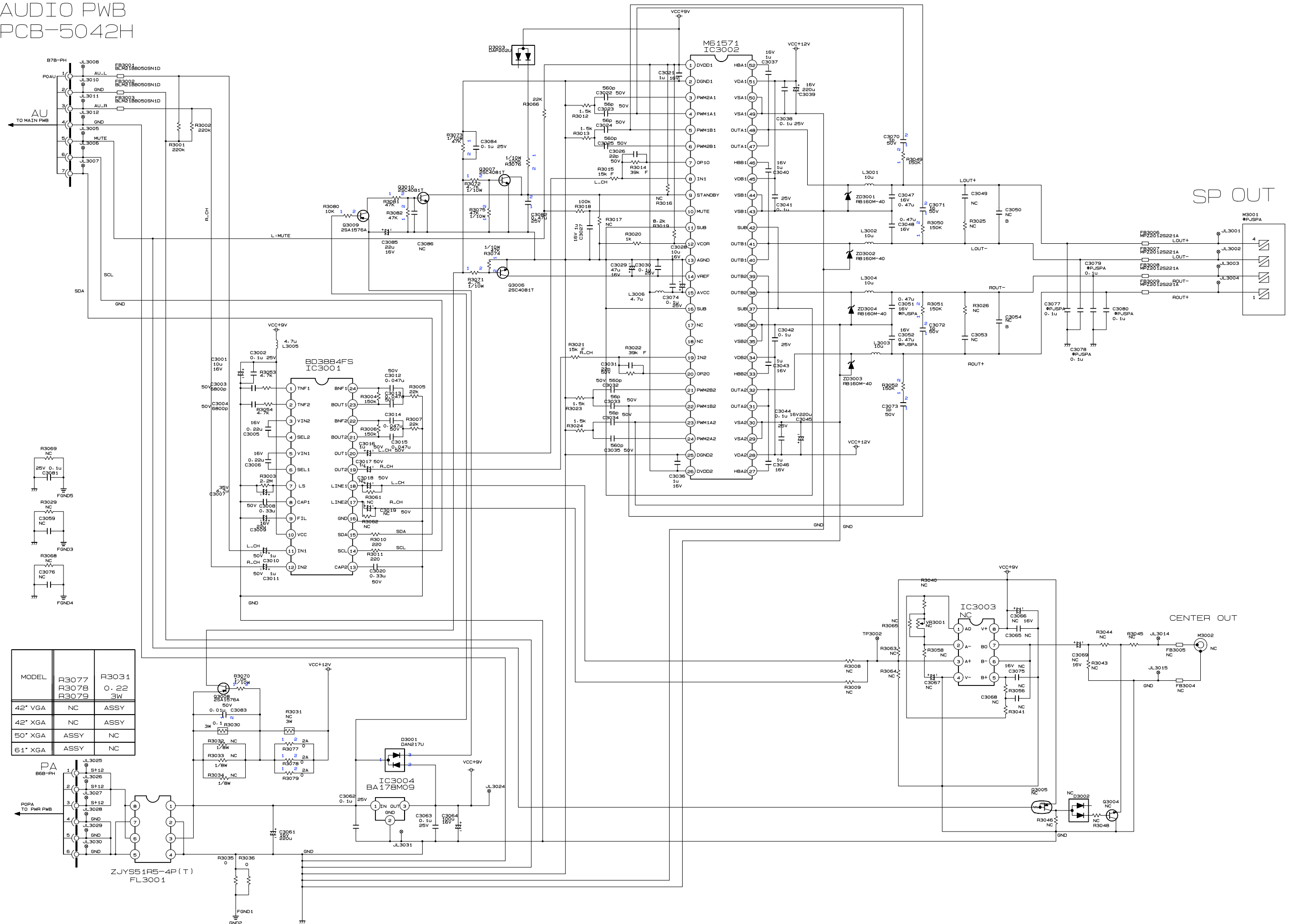
SENC PWB
PCB-5042F



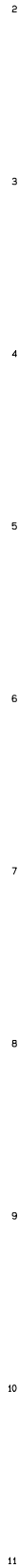
SEND PWB
PCB-5042G



AUDIO PWB
PCB-5042H



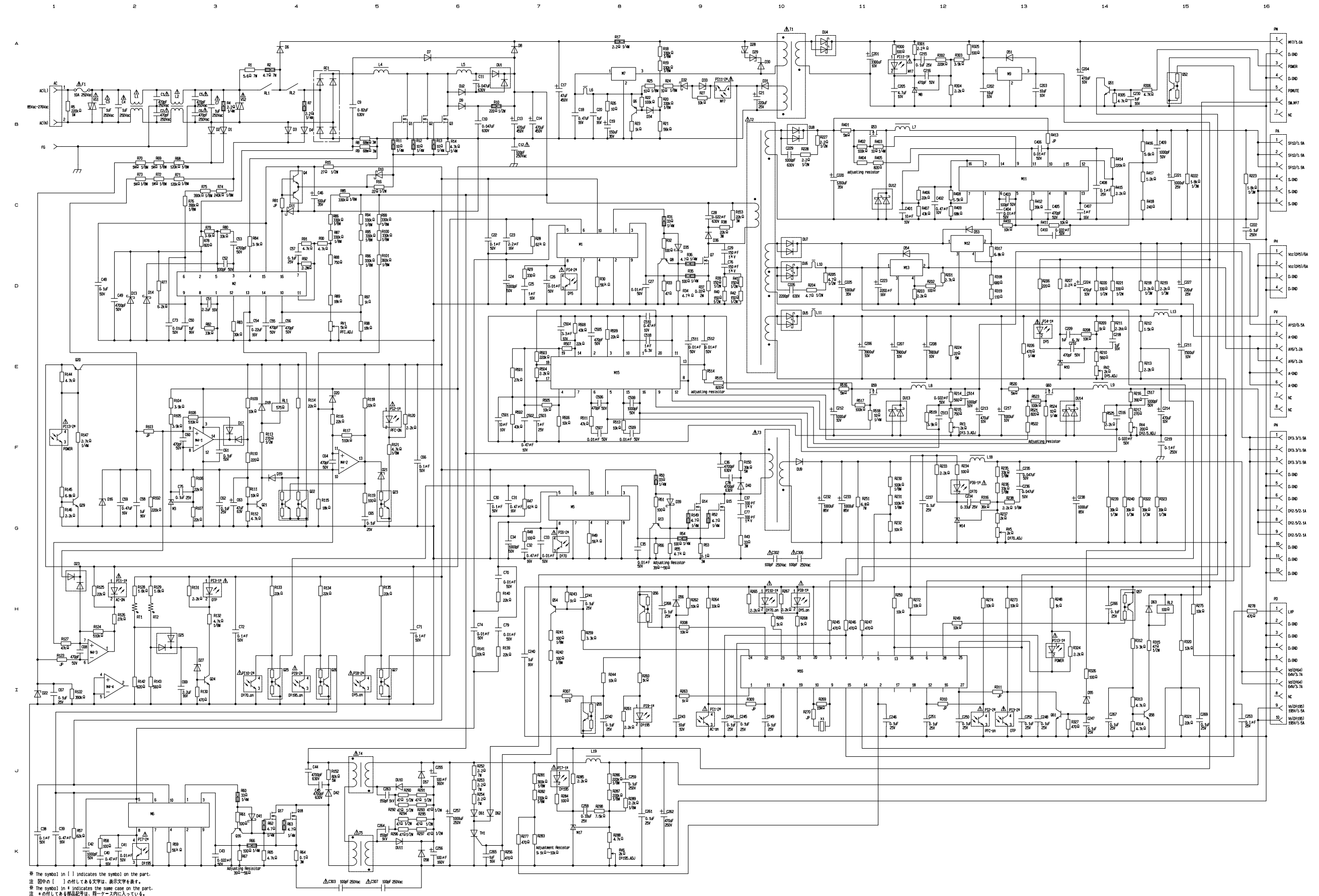
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POWER UNIT (for PX-50XM4/50XR4)

PNE813-31

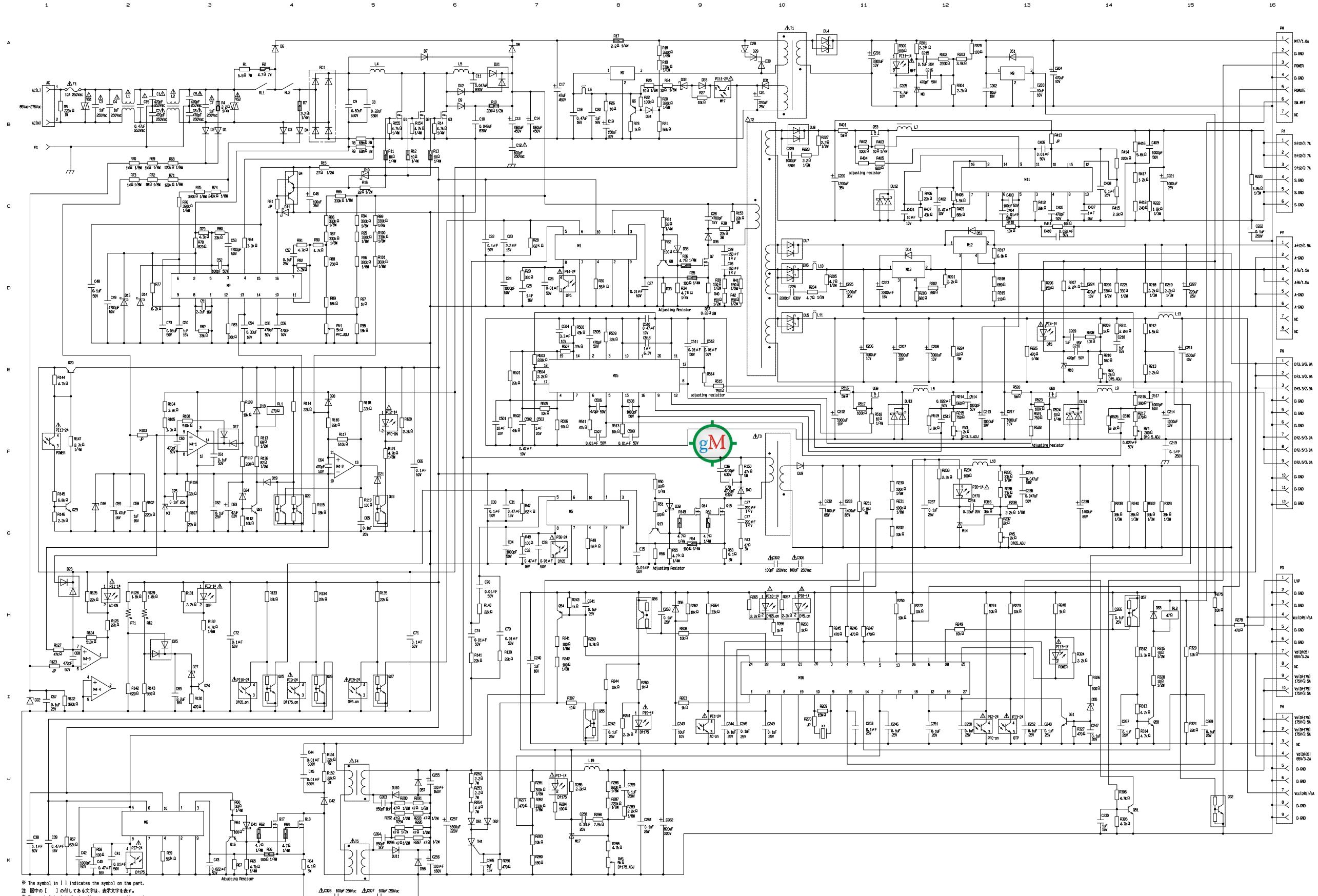
CONFIDENTIAL



POWER UNIT (for PX-61XM3/61XR3)

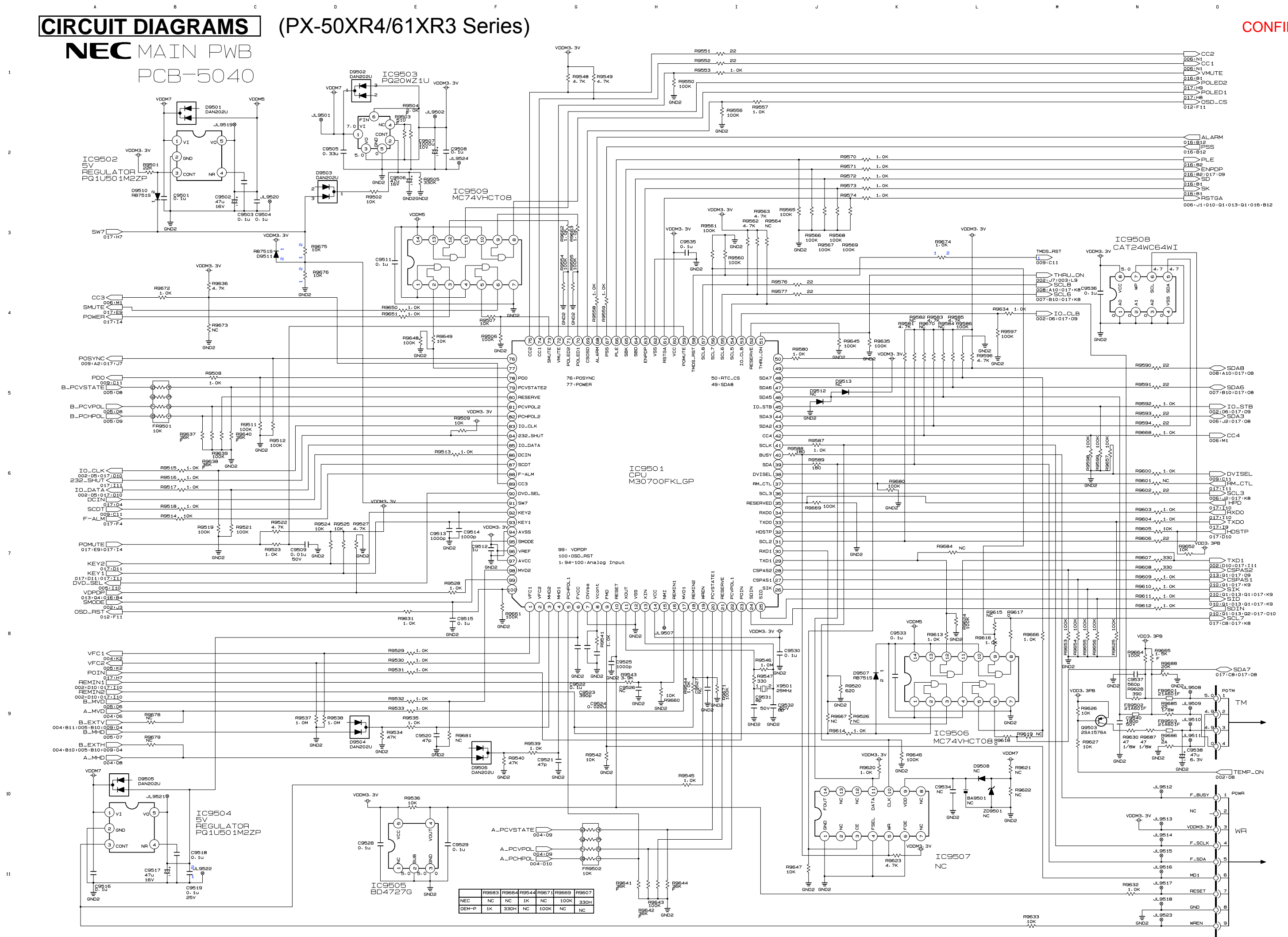
PNE825-30

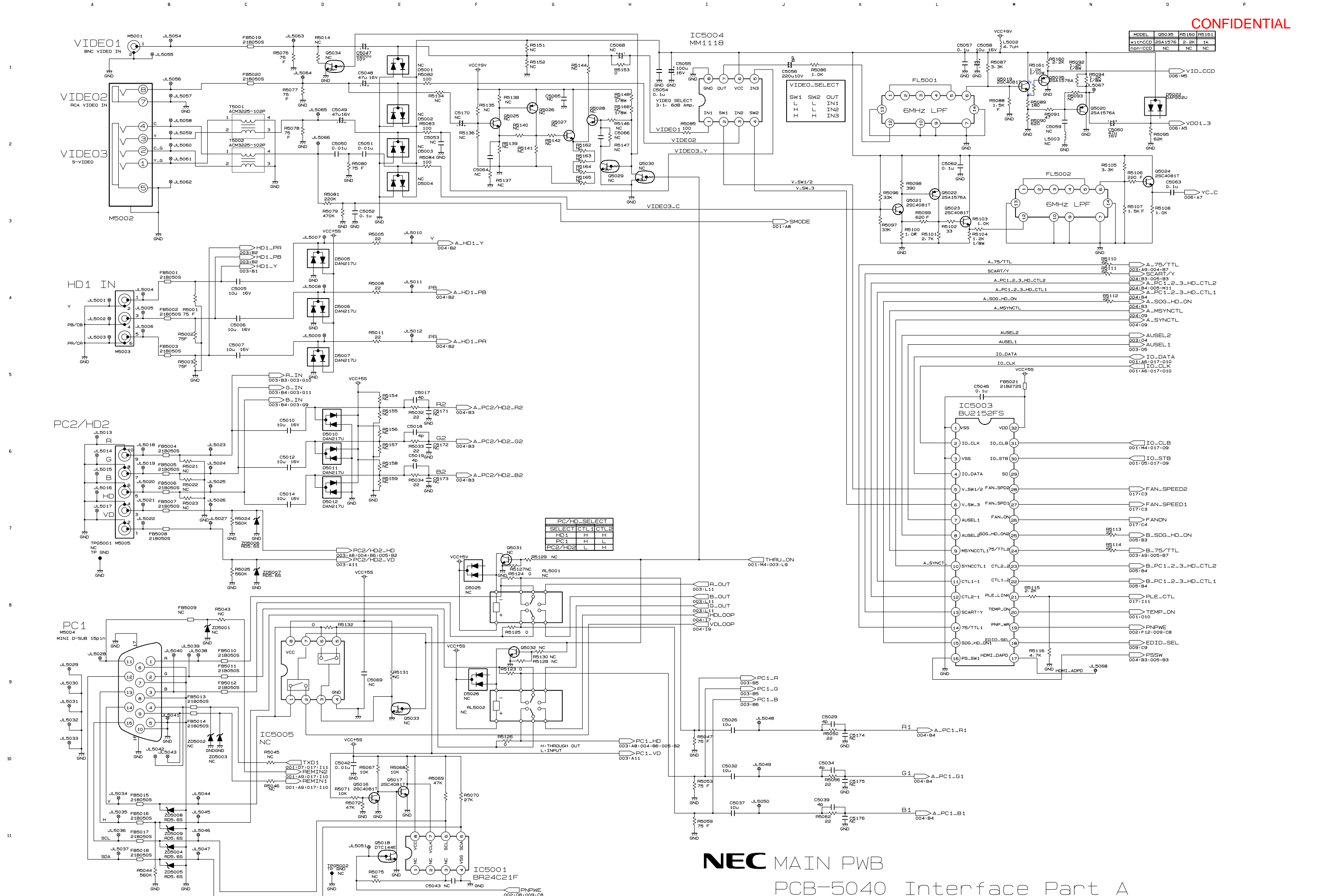
CONFIDENTIAL



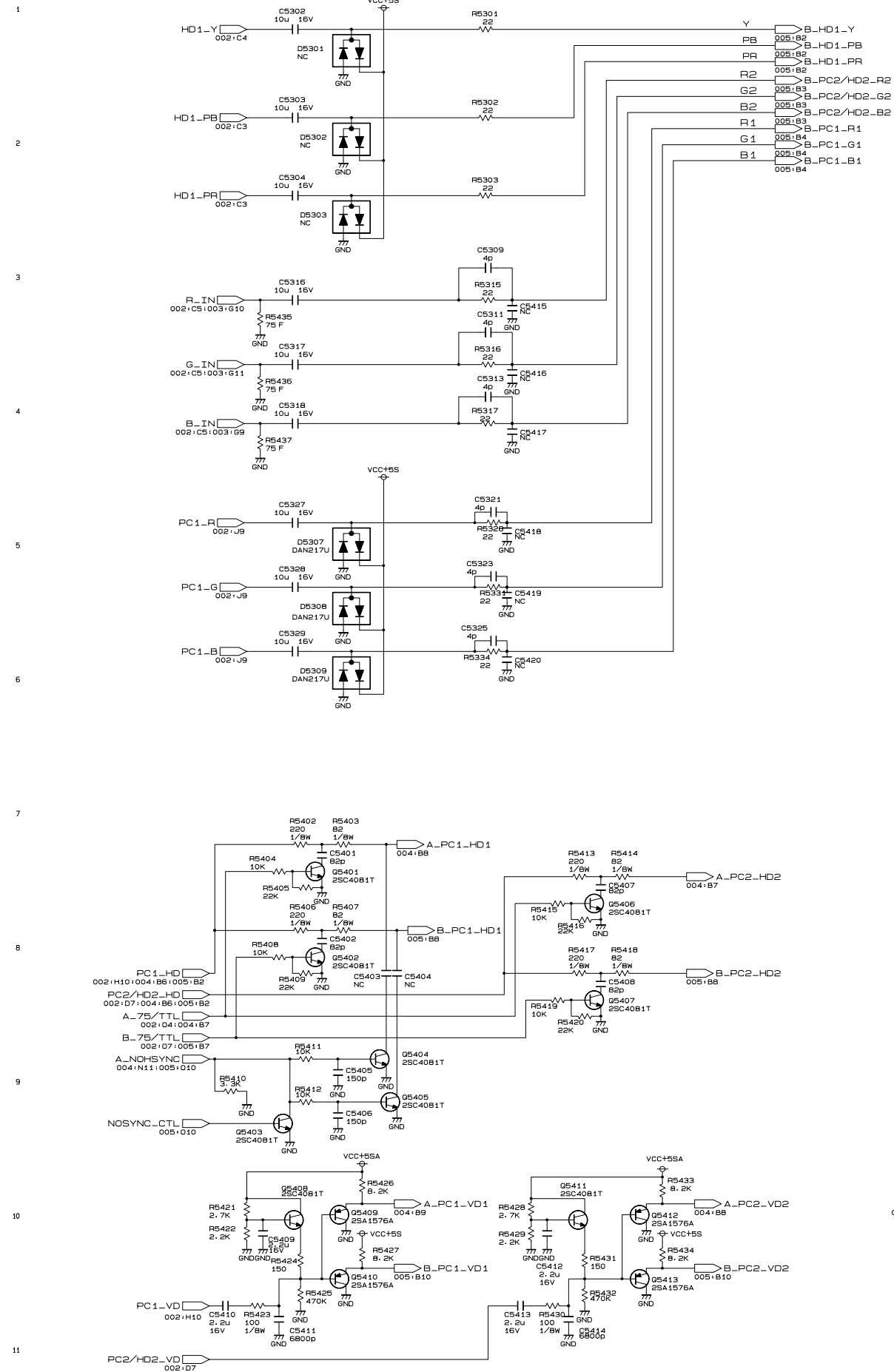
(PX-50XR4/61XR3 Series)

NEC MAIN PWB
PCB-5040

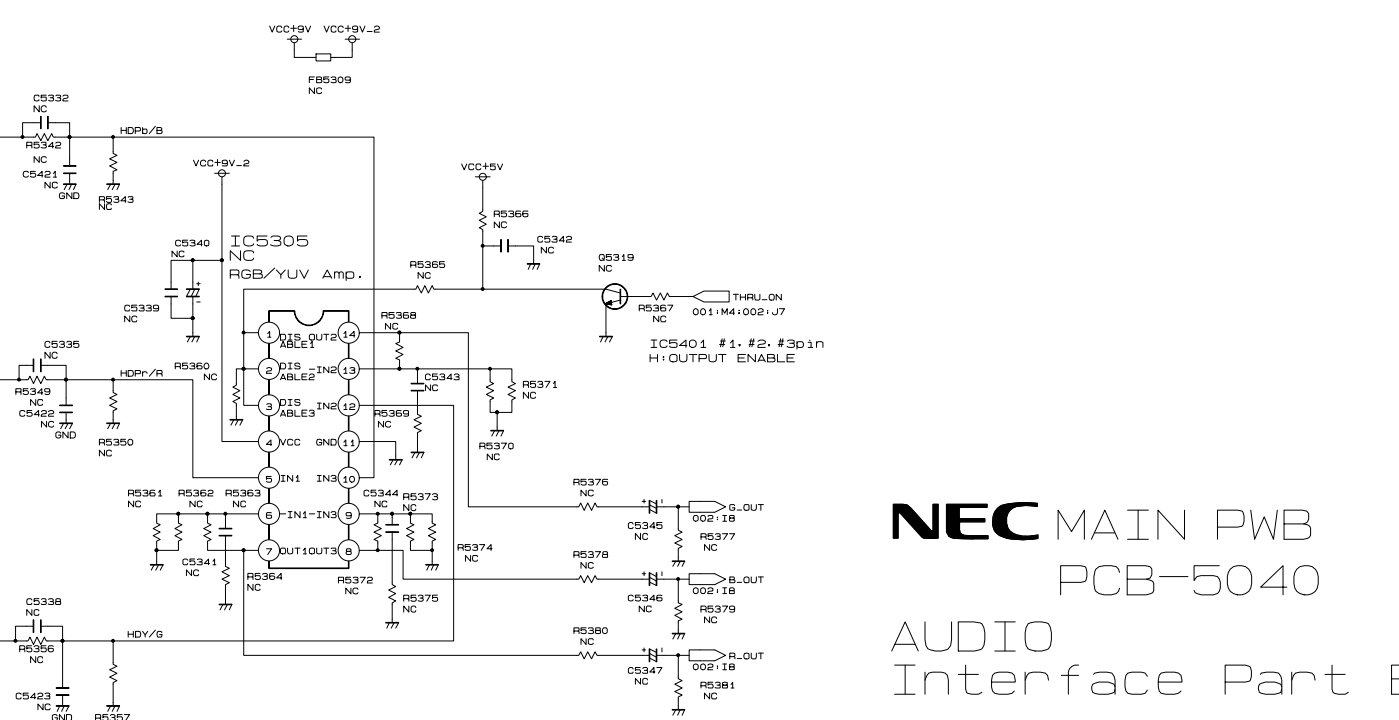
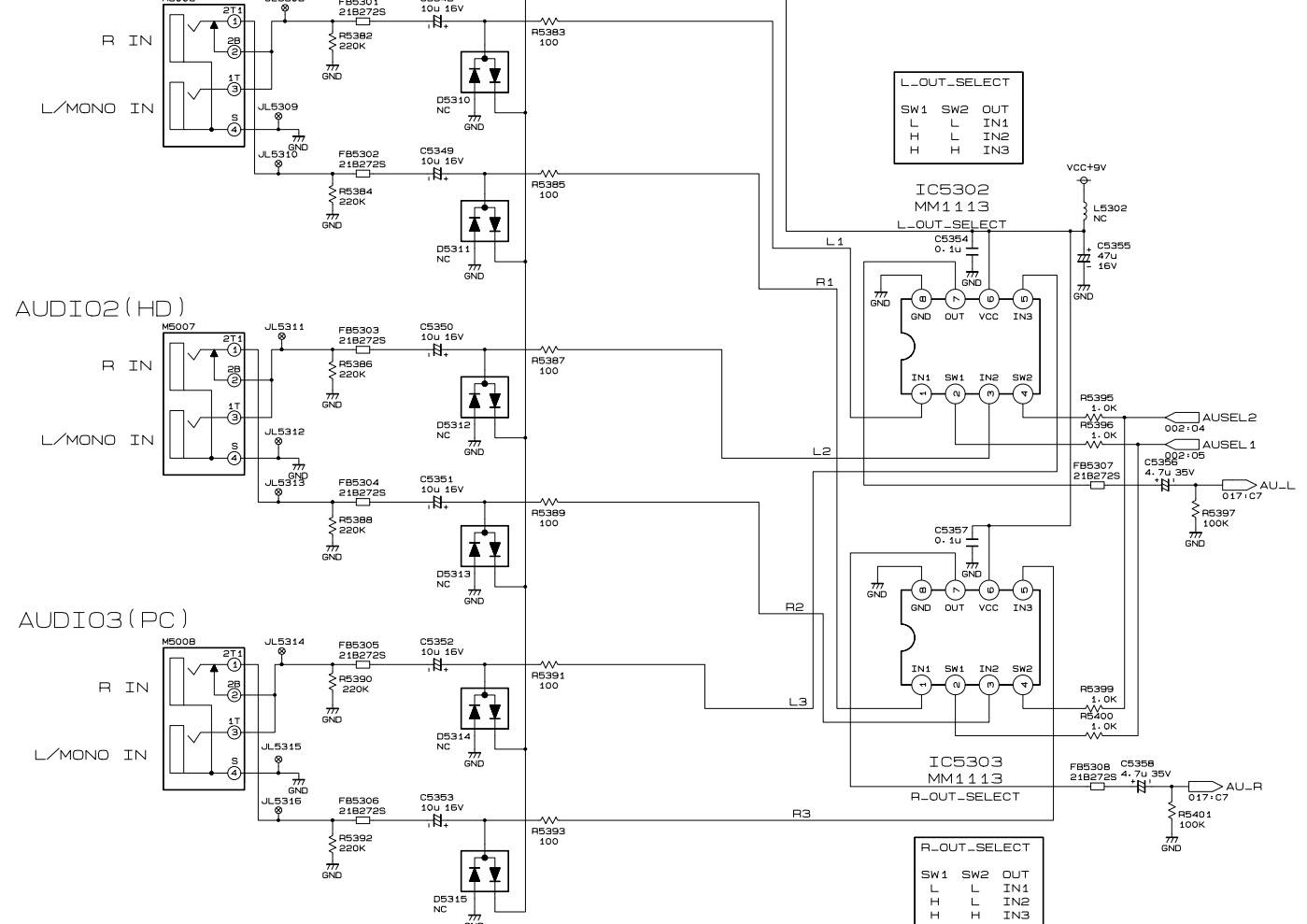




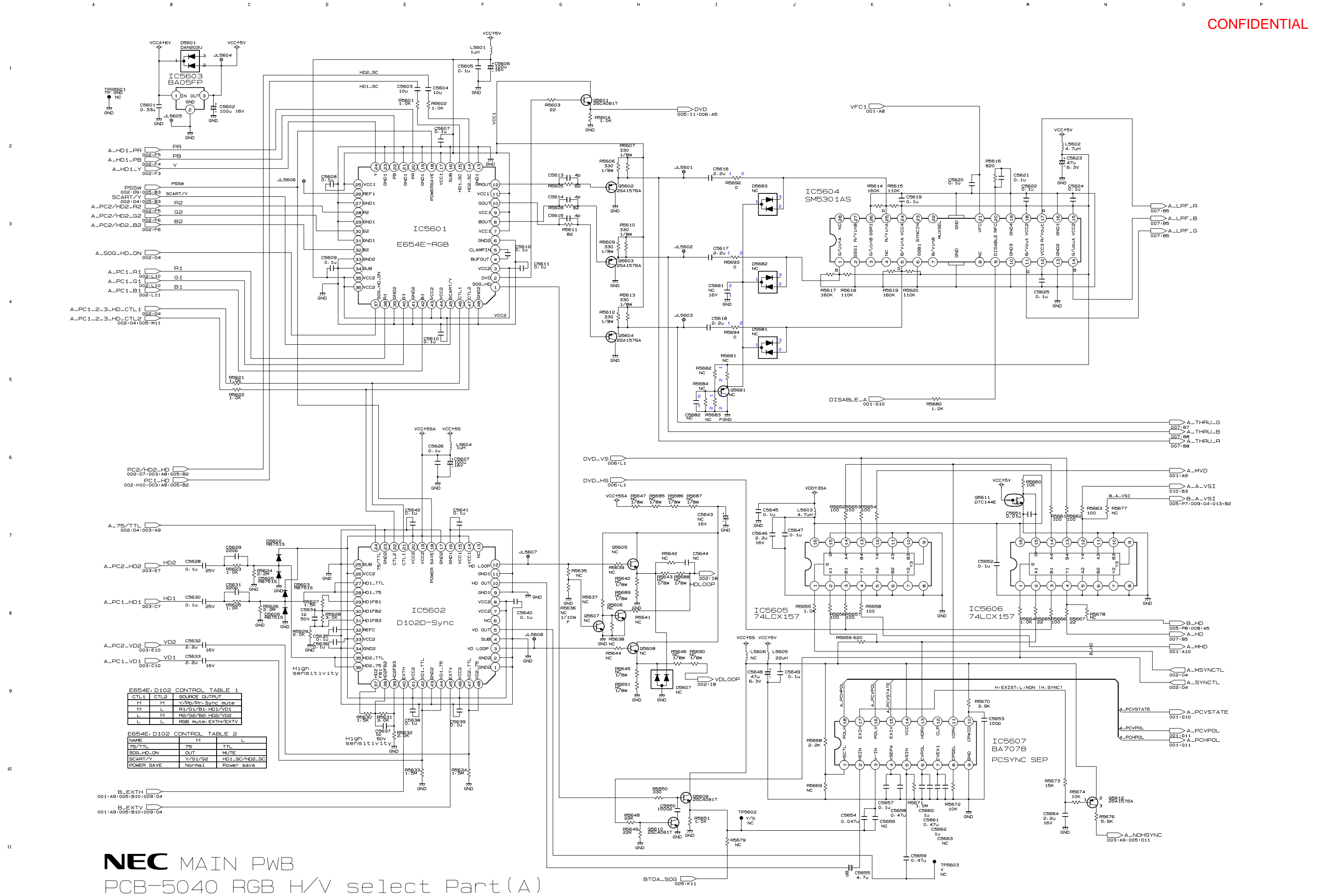
NEC MAIN PWB
PCB-5040 Interface Part A



AUDIO1 (VIDEO)



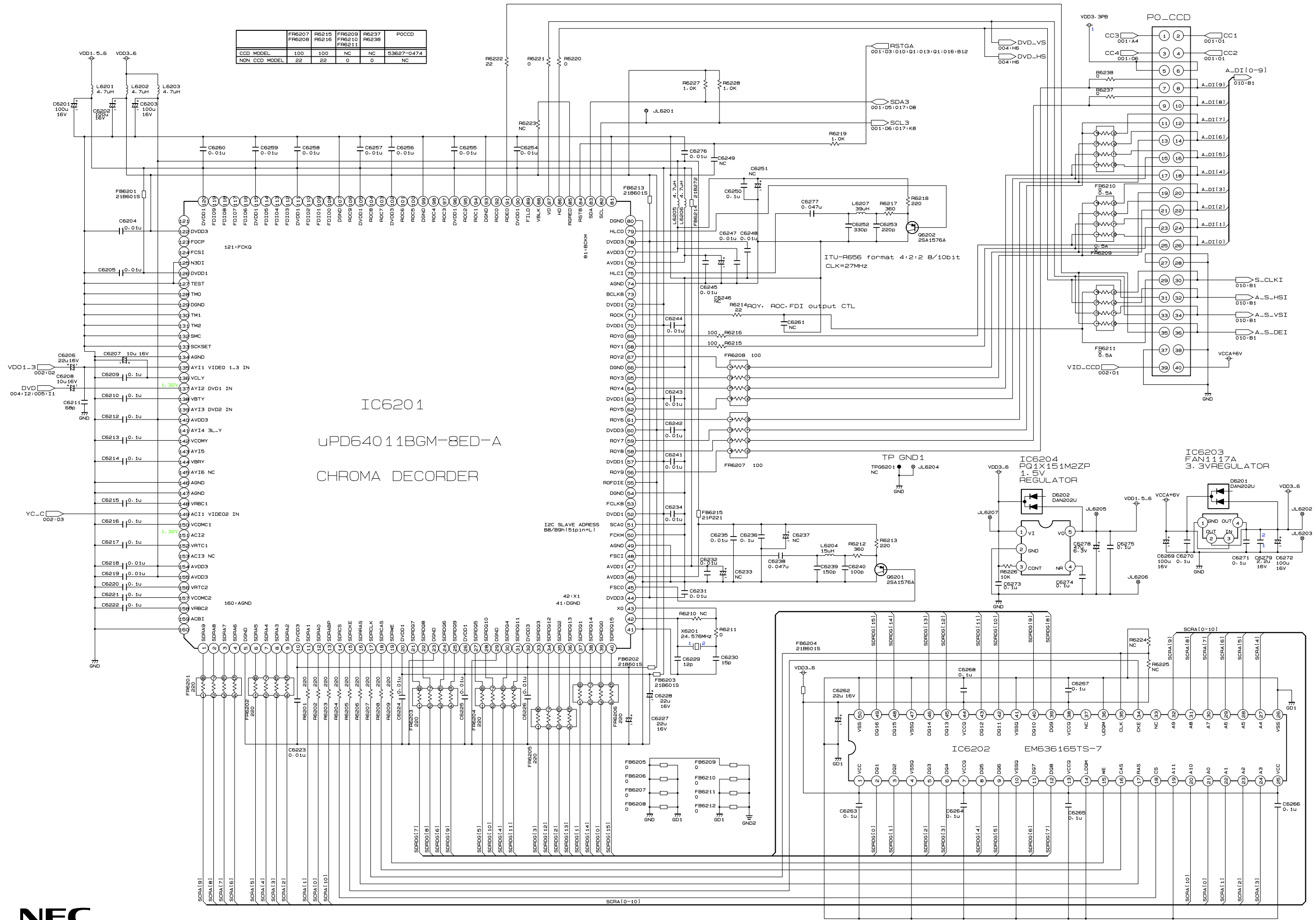
NEC MAIN PWB
PCB-5040
AUDIO
Interface Part B



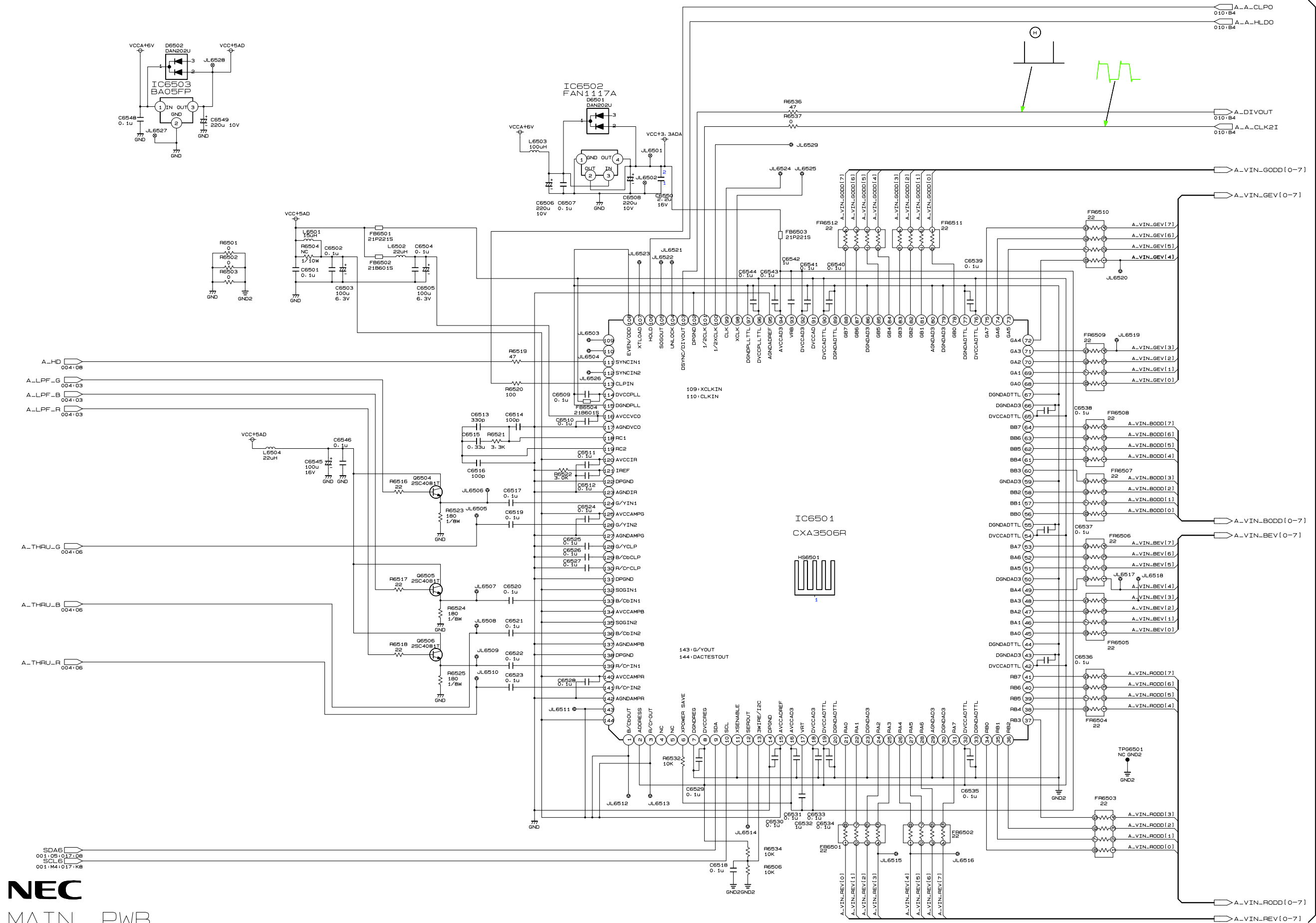
NEC MAIN PWB
PCB-5040 RGB H/V select Part(A)



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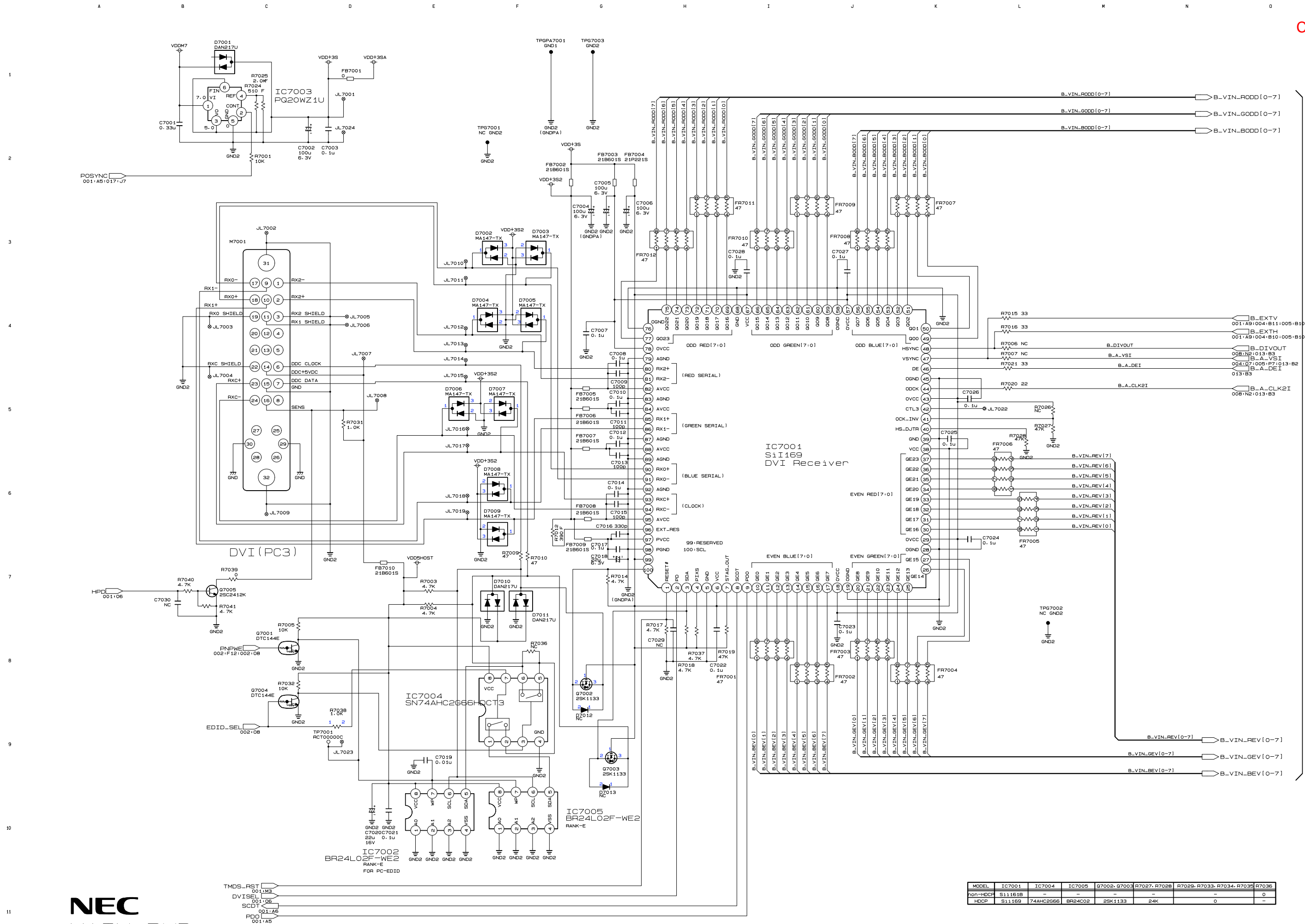


PASCAL (A)

NEC
MAIN PWB
PCB-5040
A/D Converter Part (A)



11



NEC

MAIN PWB
PCB-5040
DVI Receiver Part



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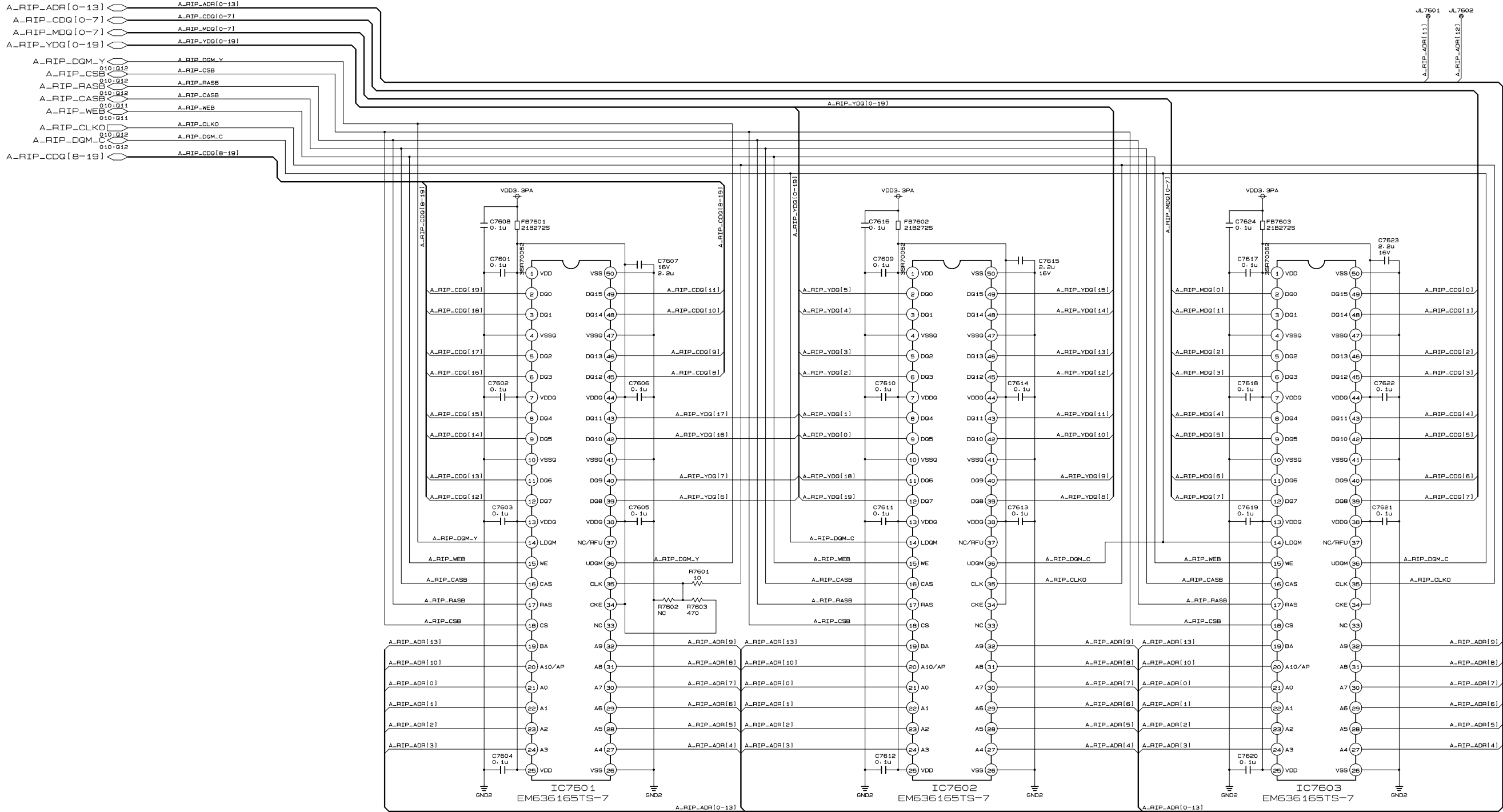
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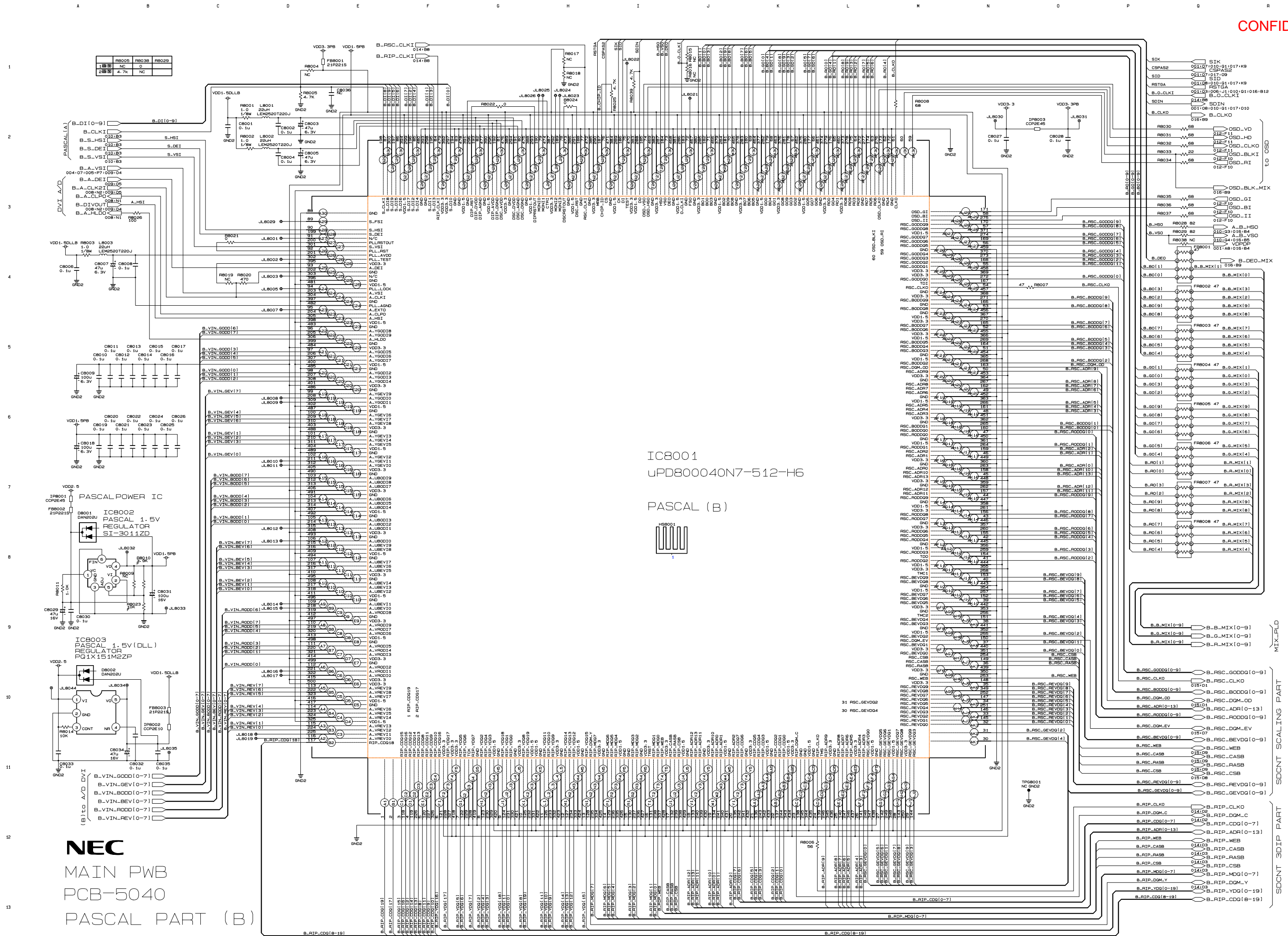
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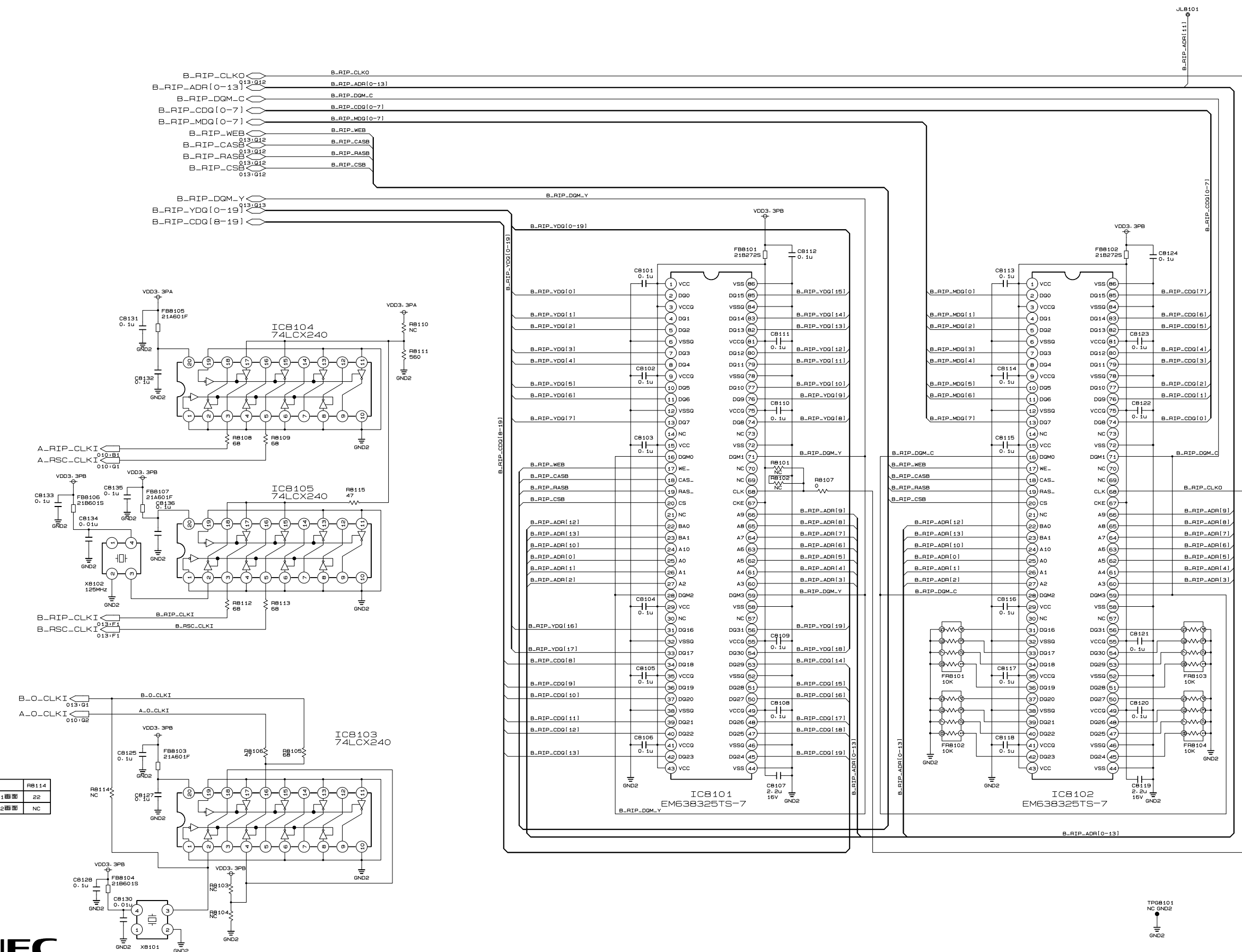
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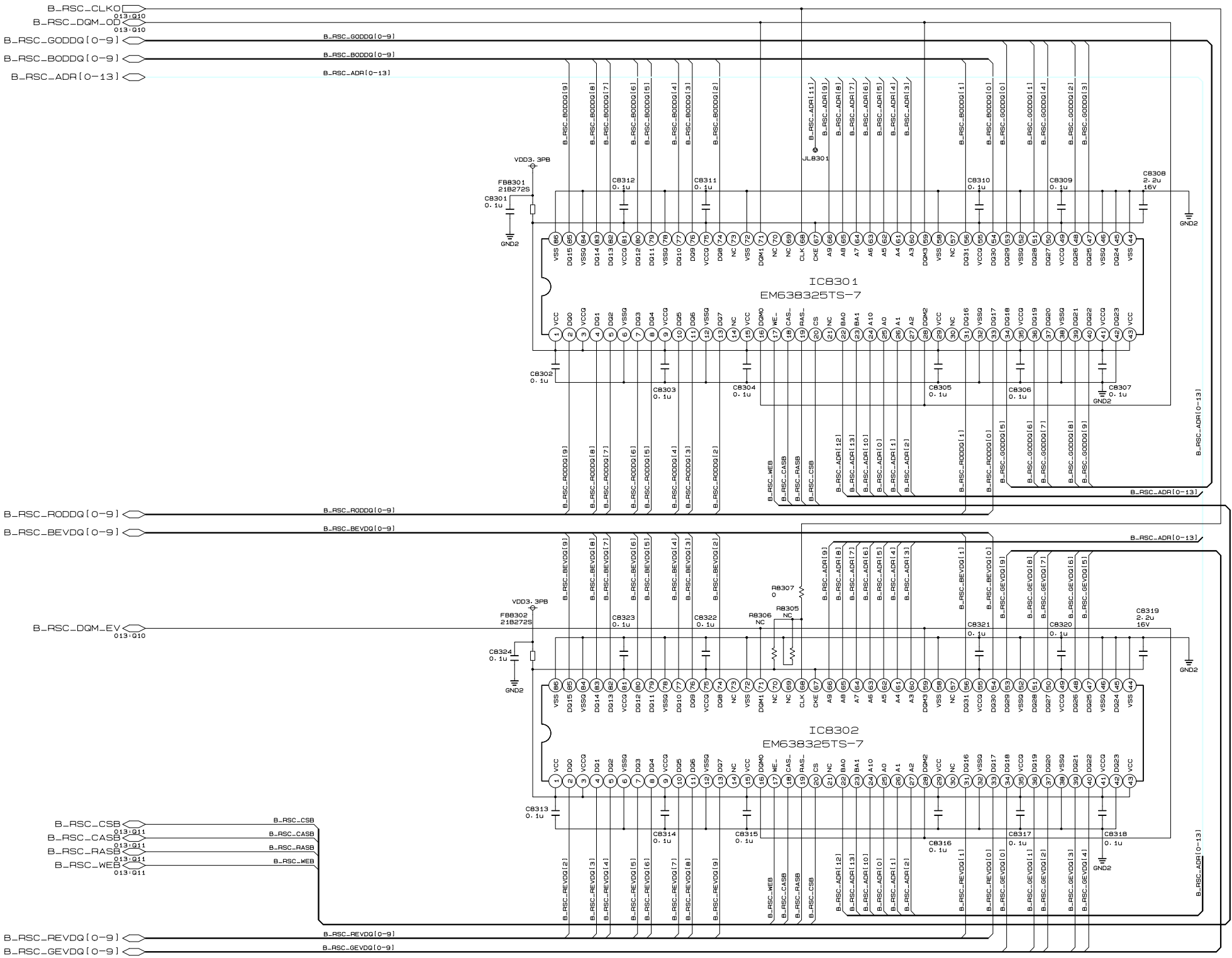


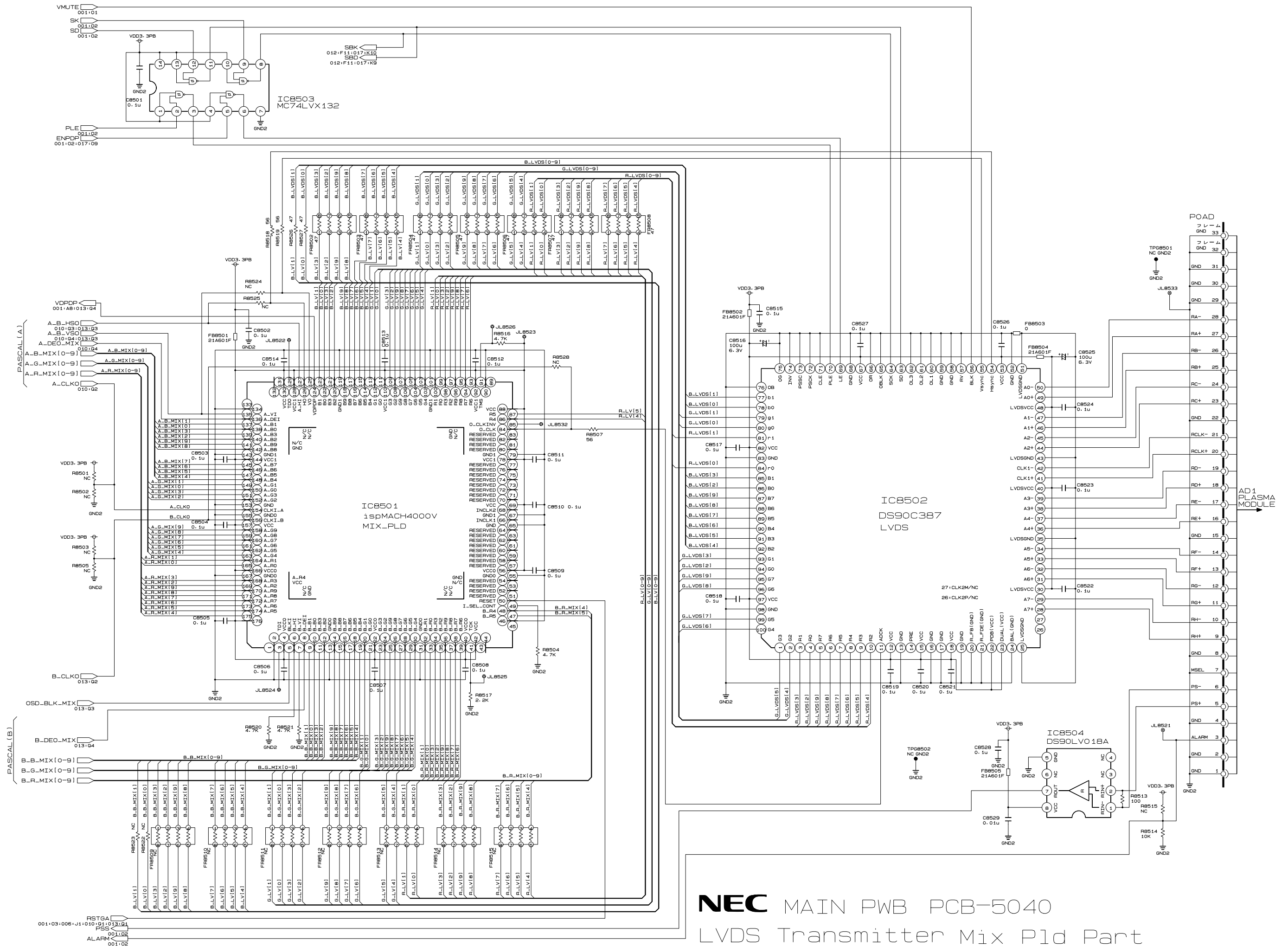
NEC
MAIN PWB PCB-5040
SDCNT 3DIP PART (A)





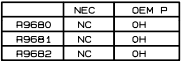






NEC MAIN PWB PCB-5040
LVDS Transmitter Mix Pld Part

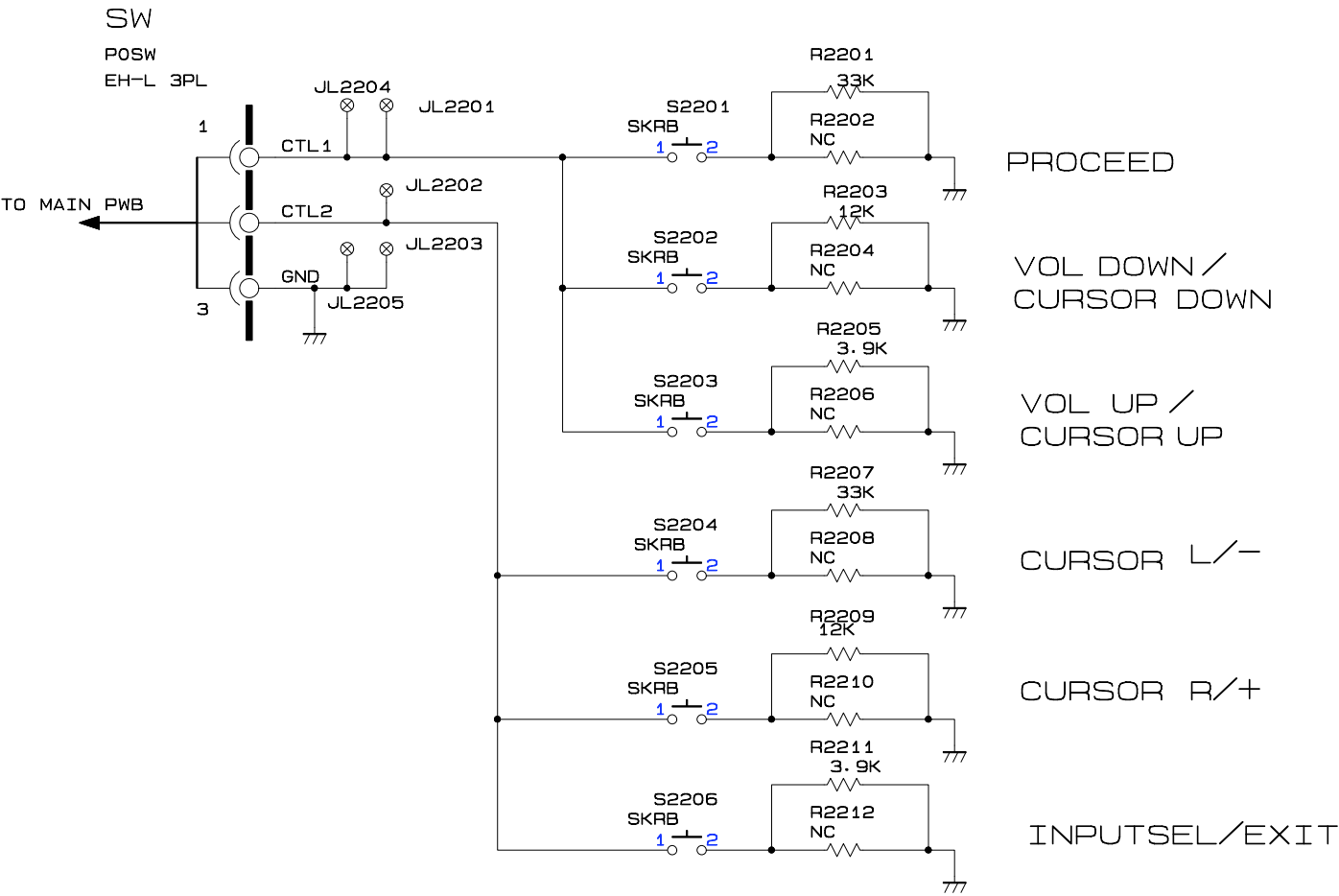
MAIN PWB
PCB-5040



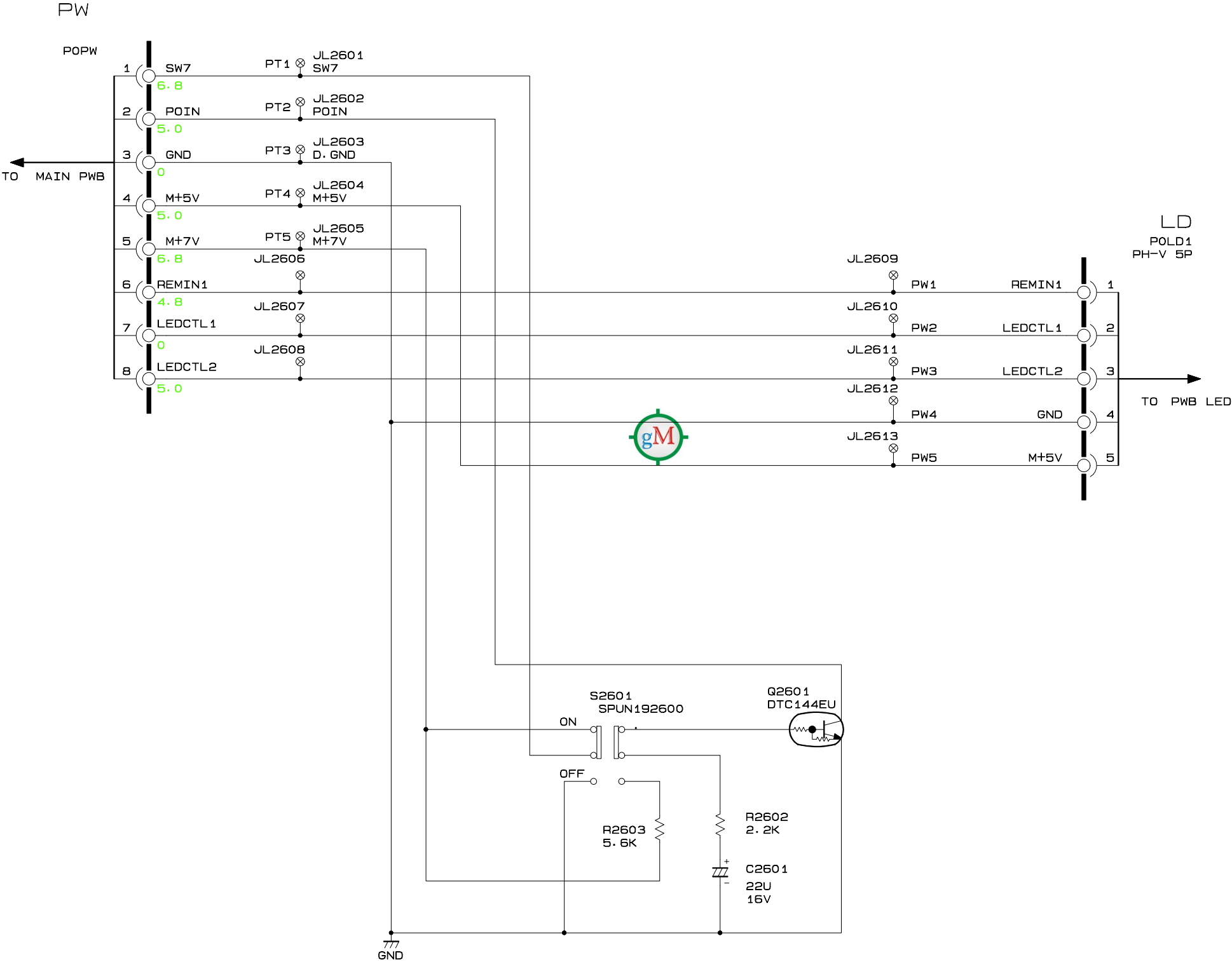
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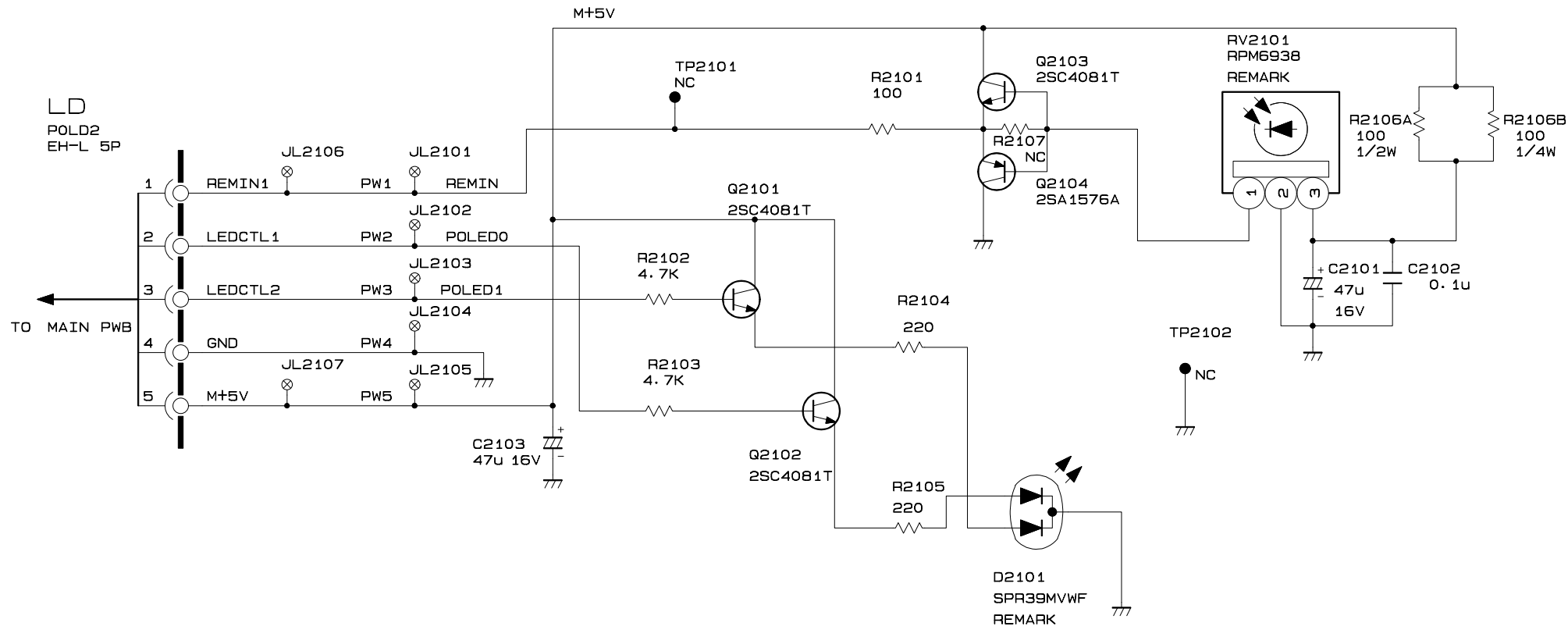
CTL PWB
PCB-5042B



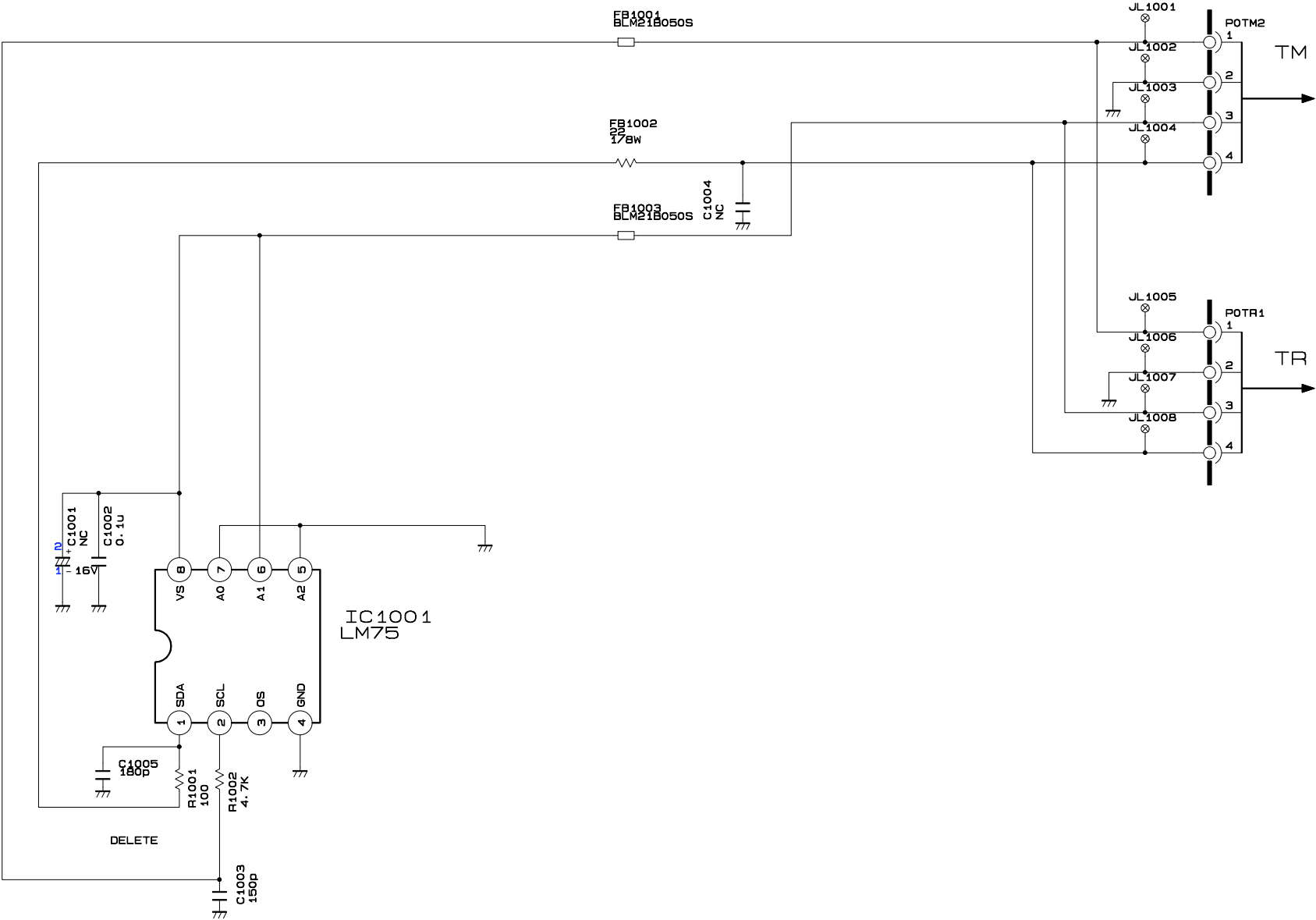
PWR PWB
PCB-5042C



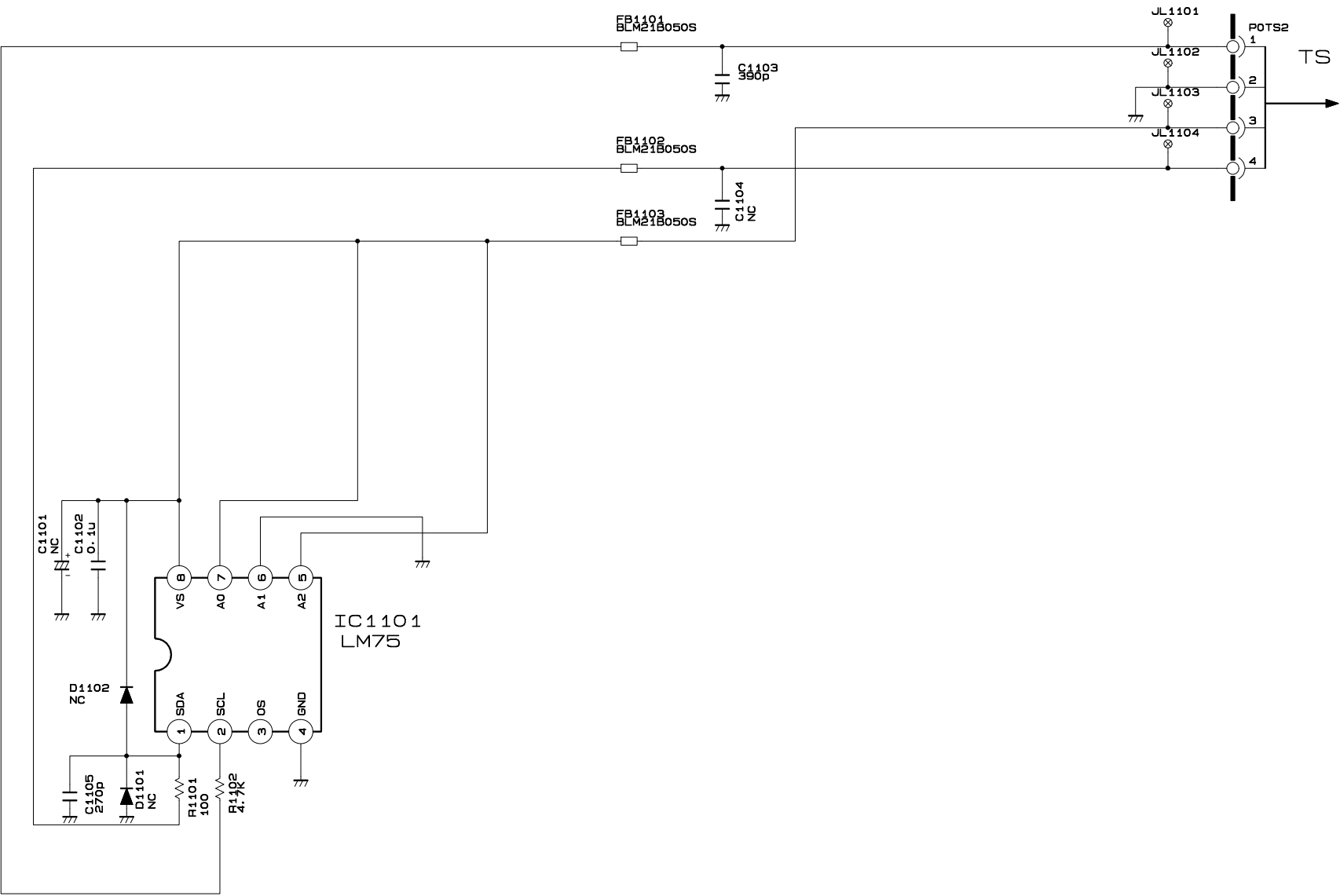
LED PWB
PCB-5042D



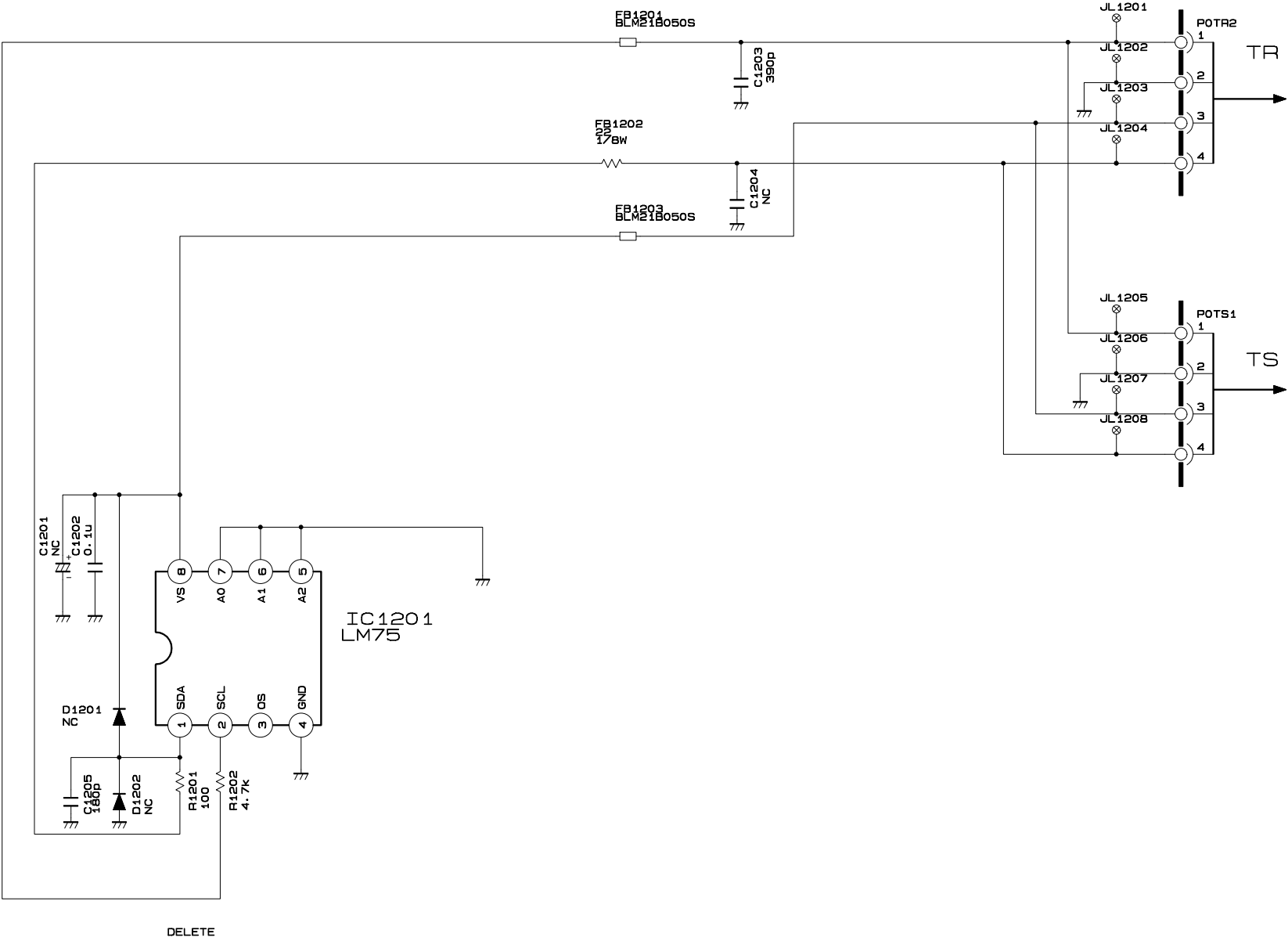
SENB PWB
PCB-5042E



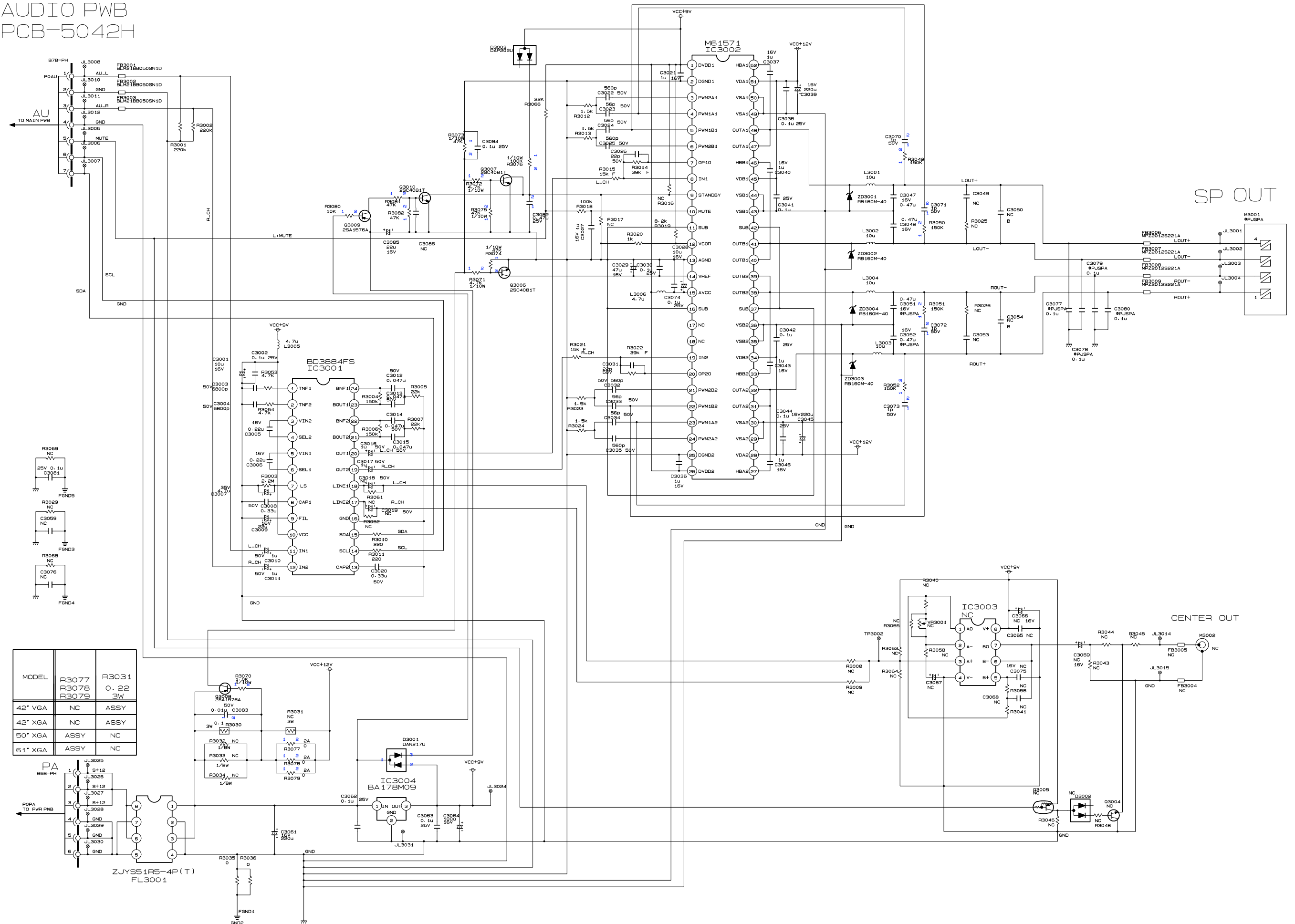
SENC PWB
PCB-5042F



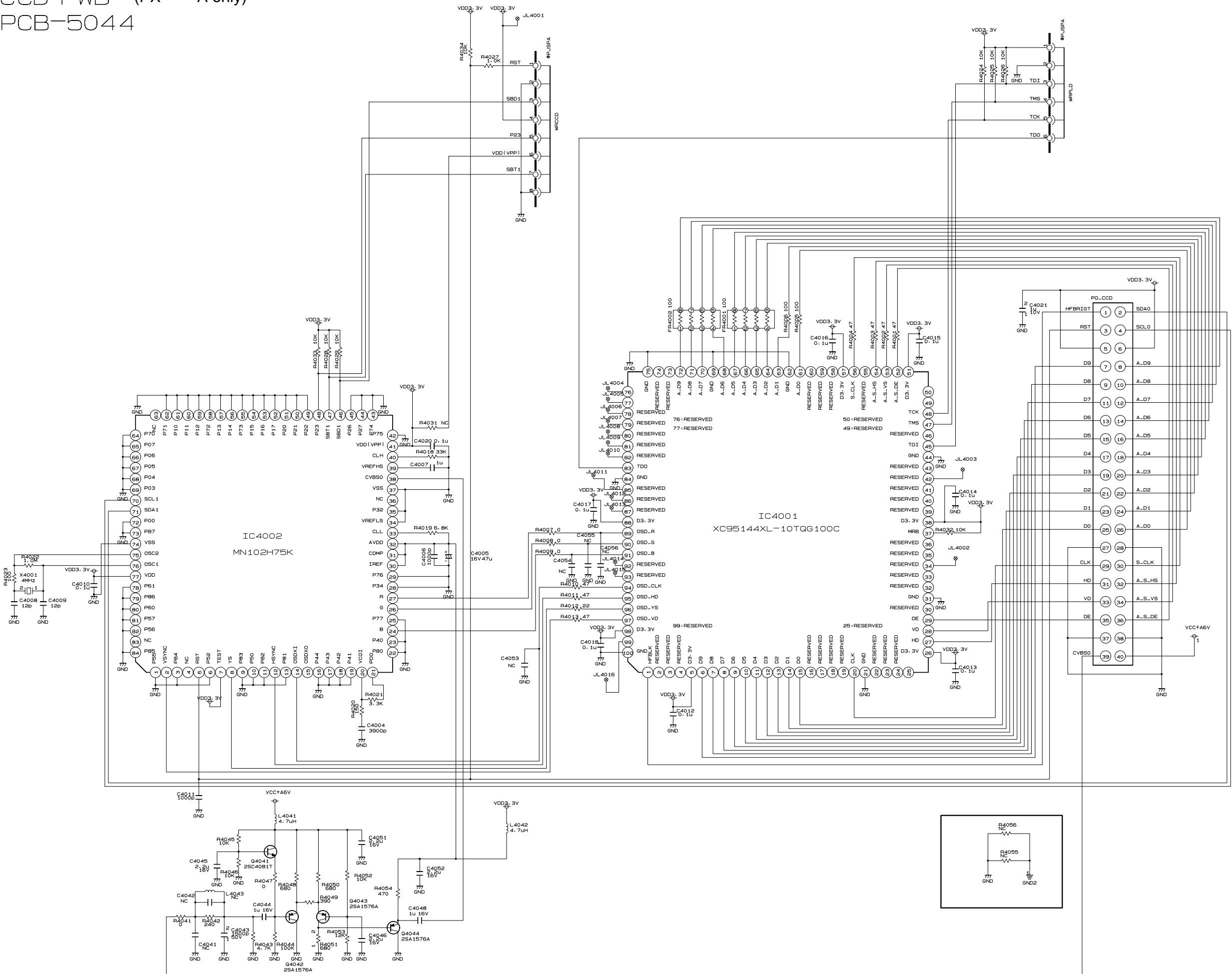
SEND PWB
PCB-5042G



AUDIO PWB
PCB-5042H



CCD PWB (PX-****A only) PCB-5044



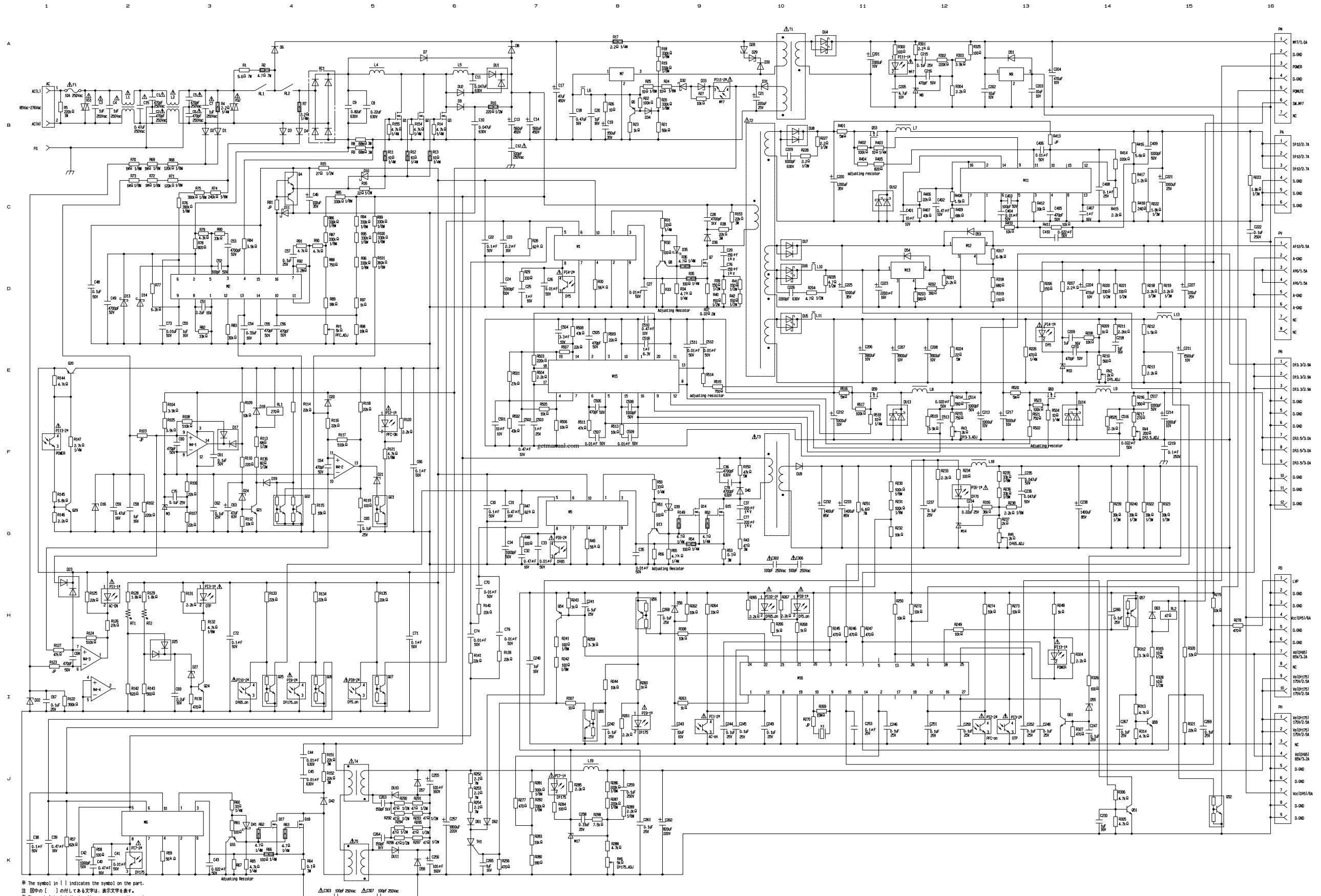
CONFIDENTIAL



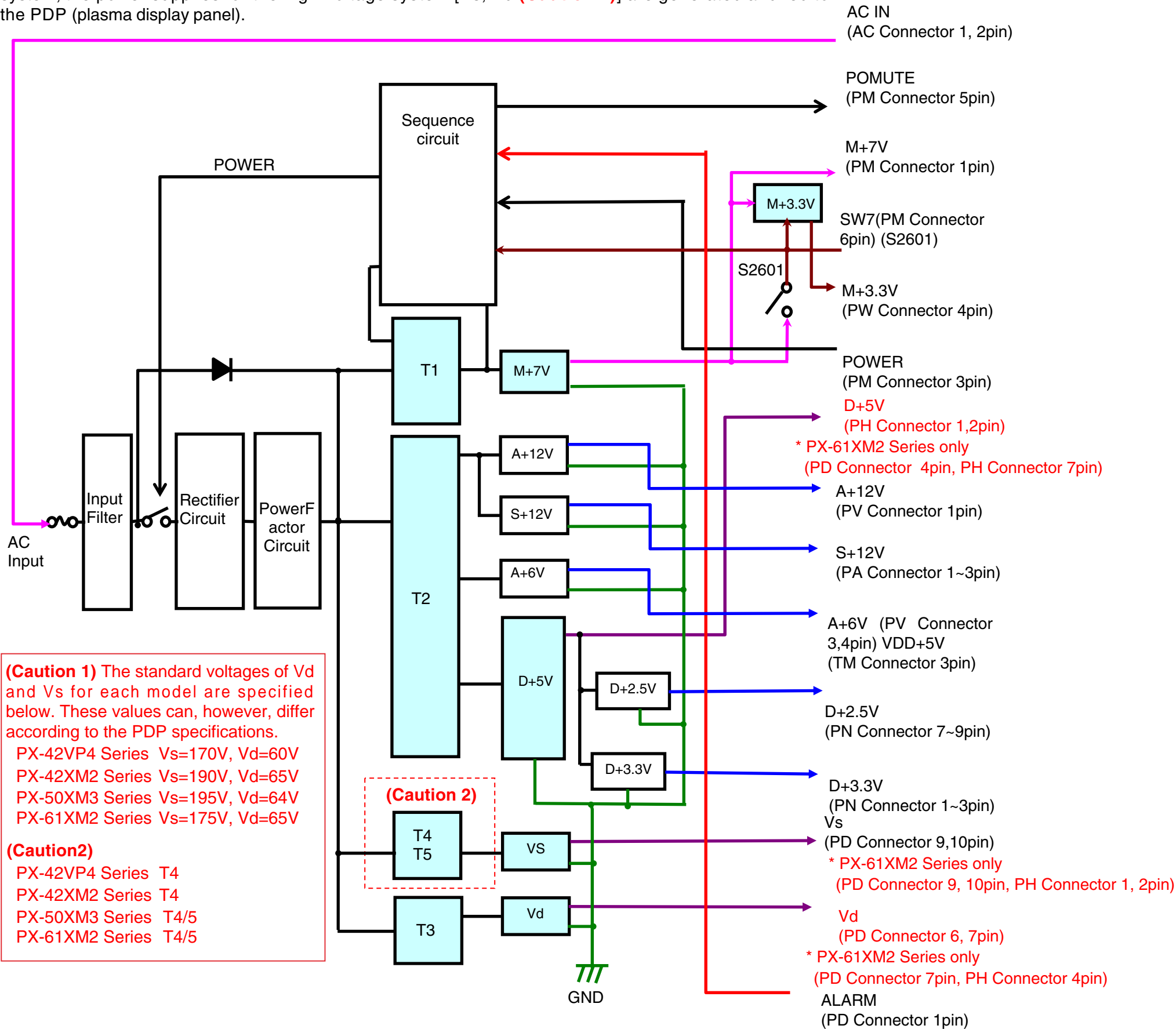
POWER UNIT (for PX-61XM3/61XR3)

PNE825-30

CONFIDENTIAL

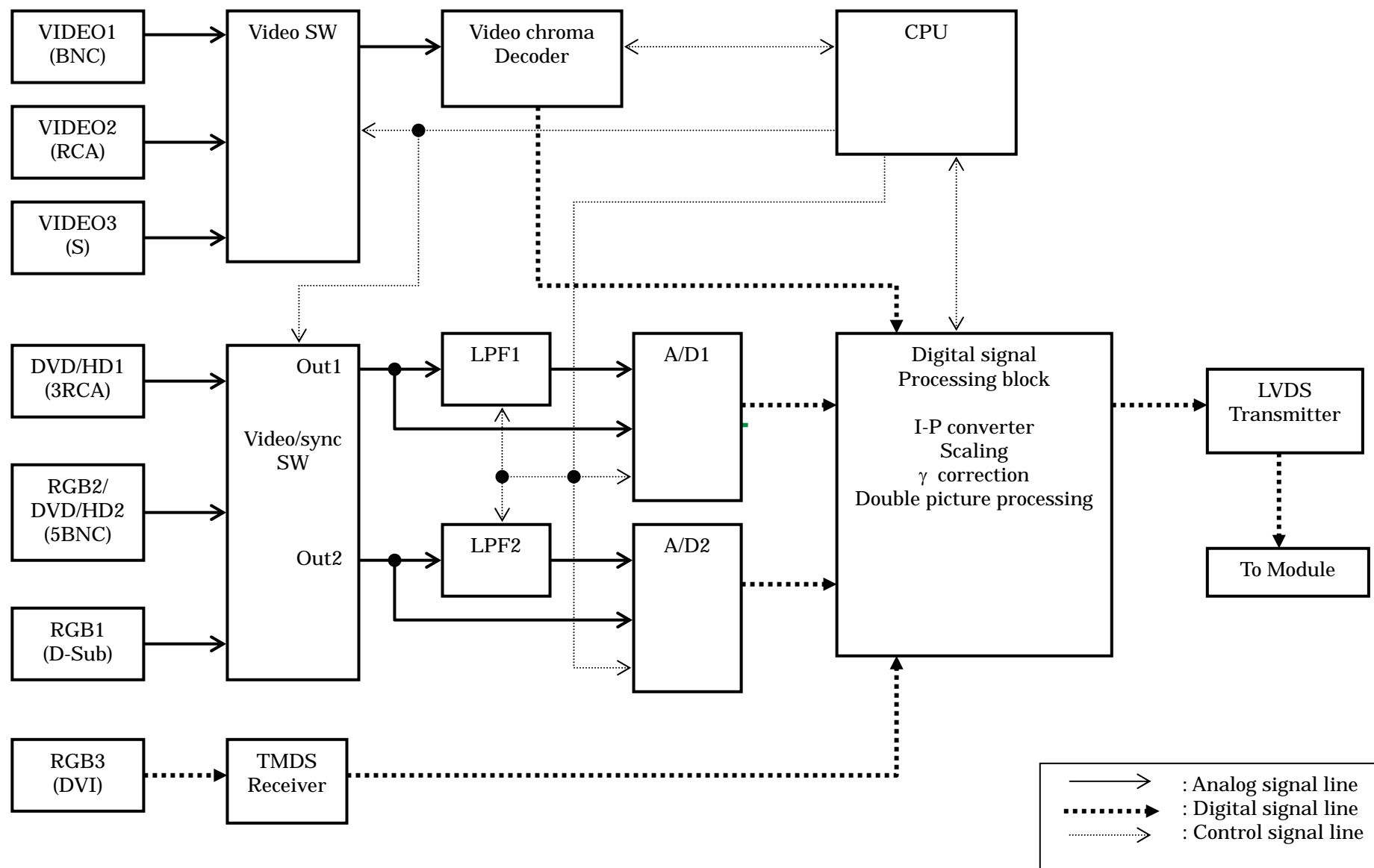


■ Power supply (Common to all models)
When the power cord is connected to a wall outlet, M+7V (7Vdc) begins to be fed to IC9503 (M+3.3V) from Pin 1 of the PM connector. When the main power switch (S2601) is turned on, IC9503 is turned on by means of SW7 (M+7V) and M+3.3V (3.3Vdc) is fed to the CPU (IC9501). With the power supply of M+3.3V, the CPU feeds the POWER signal [H] to the power unit from Pin 3 of the PM connector. As a result, power supplies of the signal system (D+5V, D+3.3V, D+2.5V, A+12V, A+6V, S+12V) are turned on so that power can be fed to the respective circuits of the signal system. After the power has been fed to the signal system, the power supplies for the high-voltage system [Vs, Vd (**Caution 1**)] are generated and fed to the PDP (plasma display panel).



■ Video signal processing

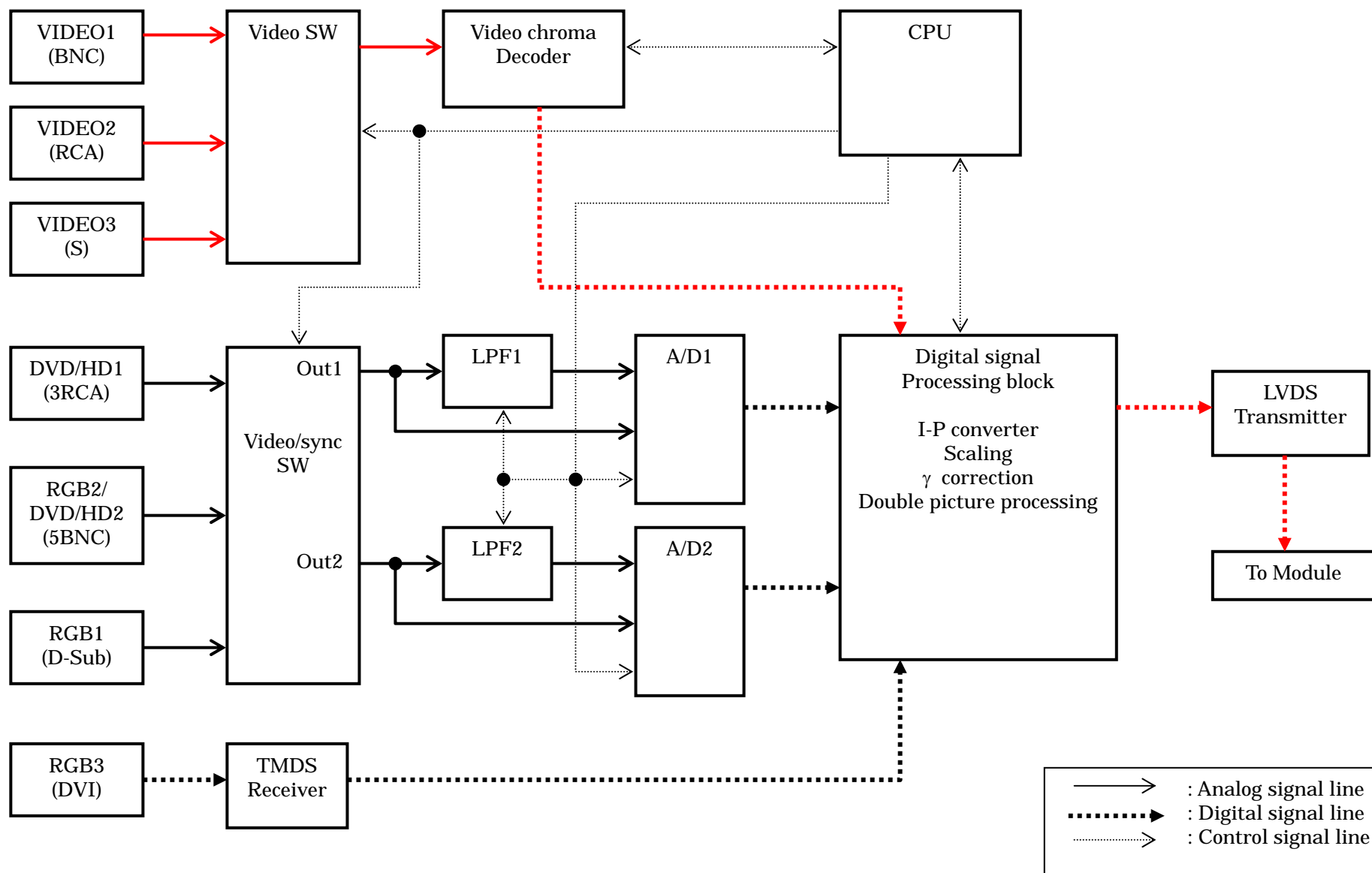
1. Basic configuration diagram



2. Single screen display

(1) Video 1, 2, 3 inputs

① Block operation diagram: Red lines show the flow of signals.

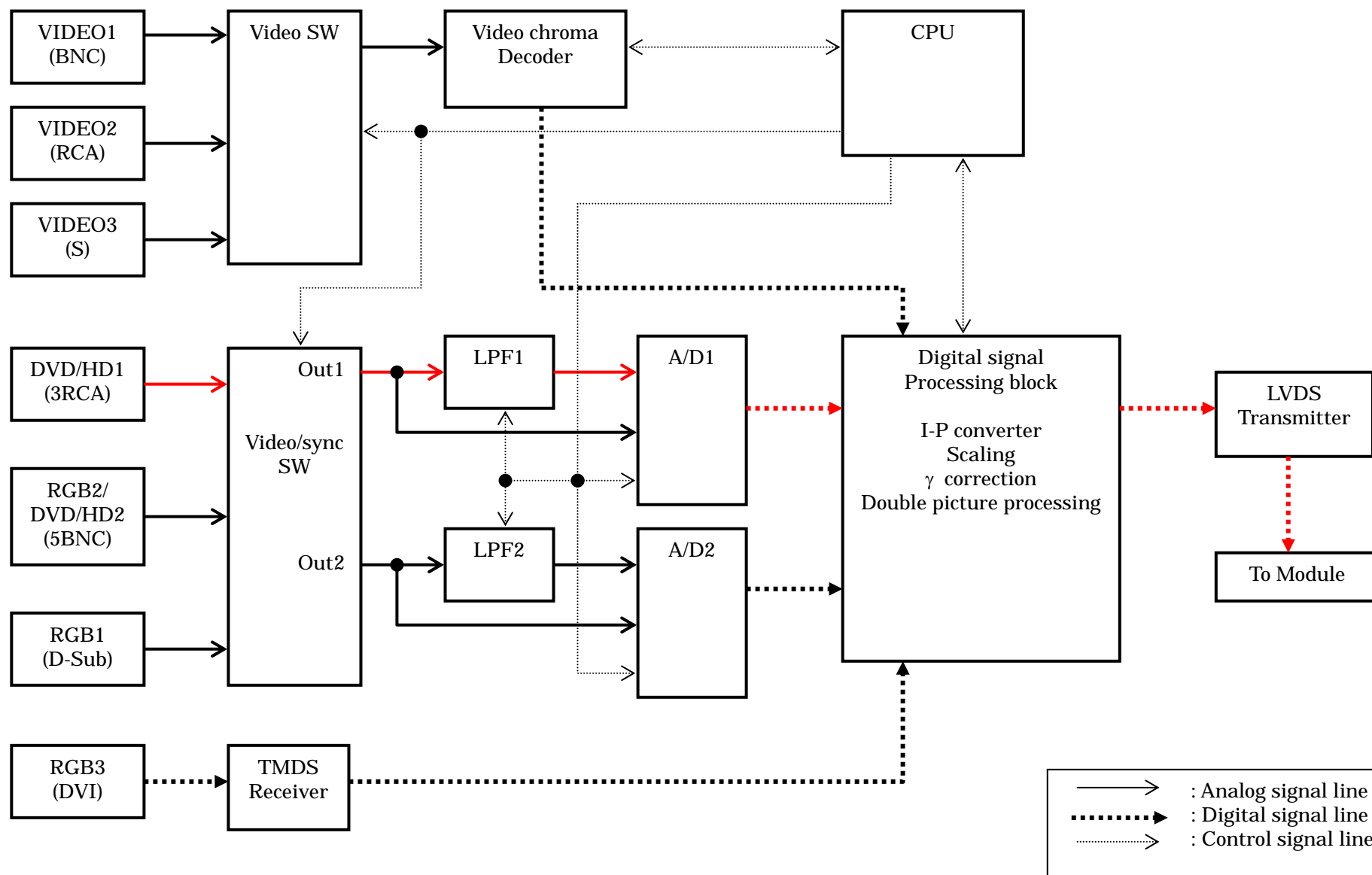


② Operational descriptions

- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(2) Chroma signal inputs (RCA input)

① Block operation diagram: Red lines show the flow of signals.

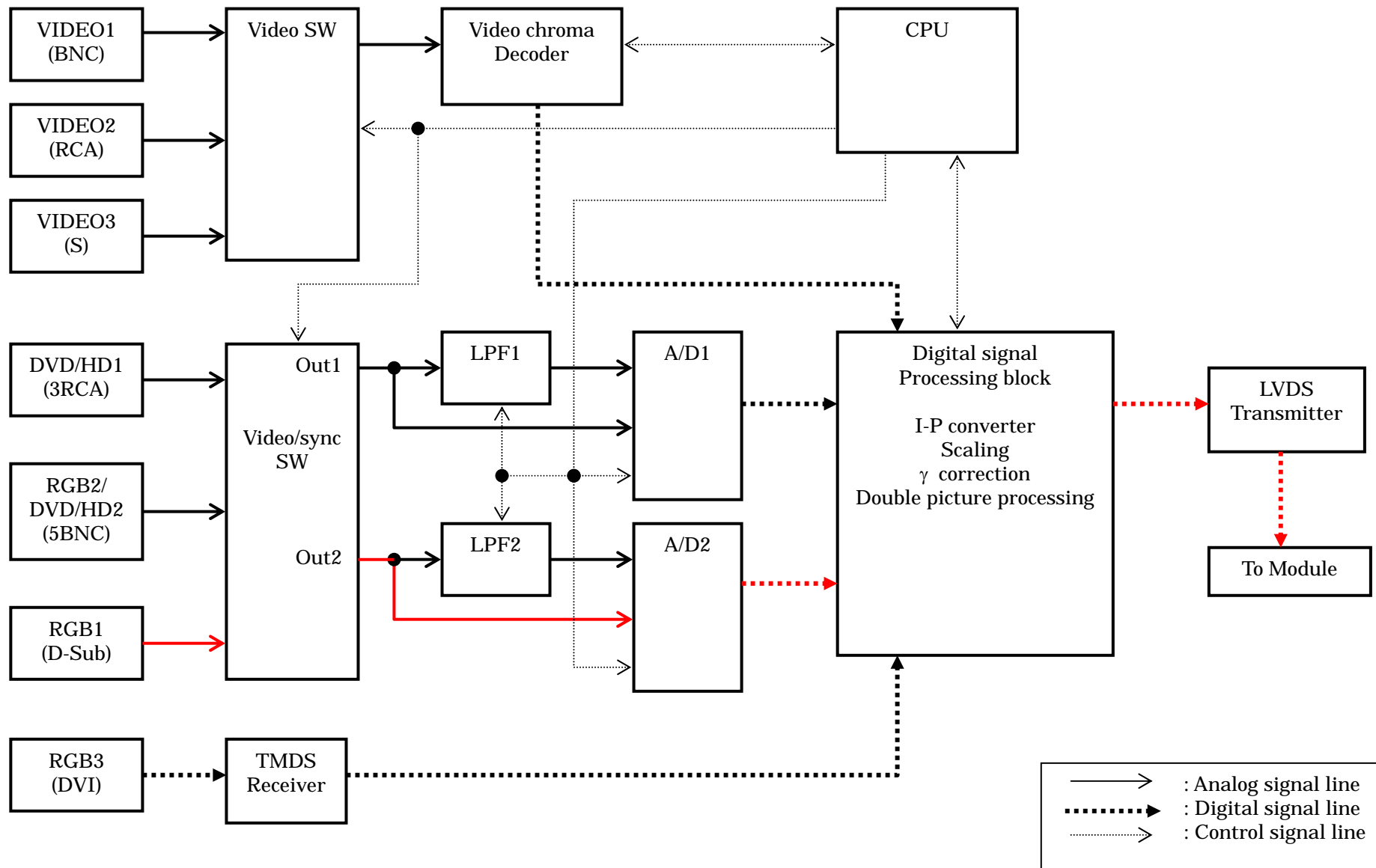


② Operational descriptions

- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(3) PC signal inputs (RGB1 (D-Sub) input)

① Block operation diagram: Red lines show the flow of signals.

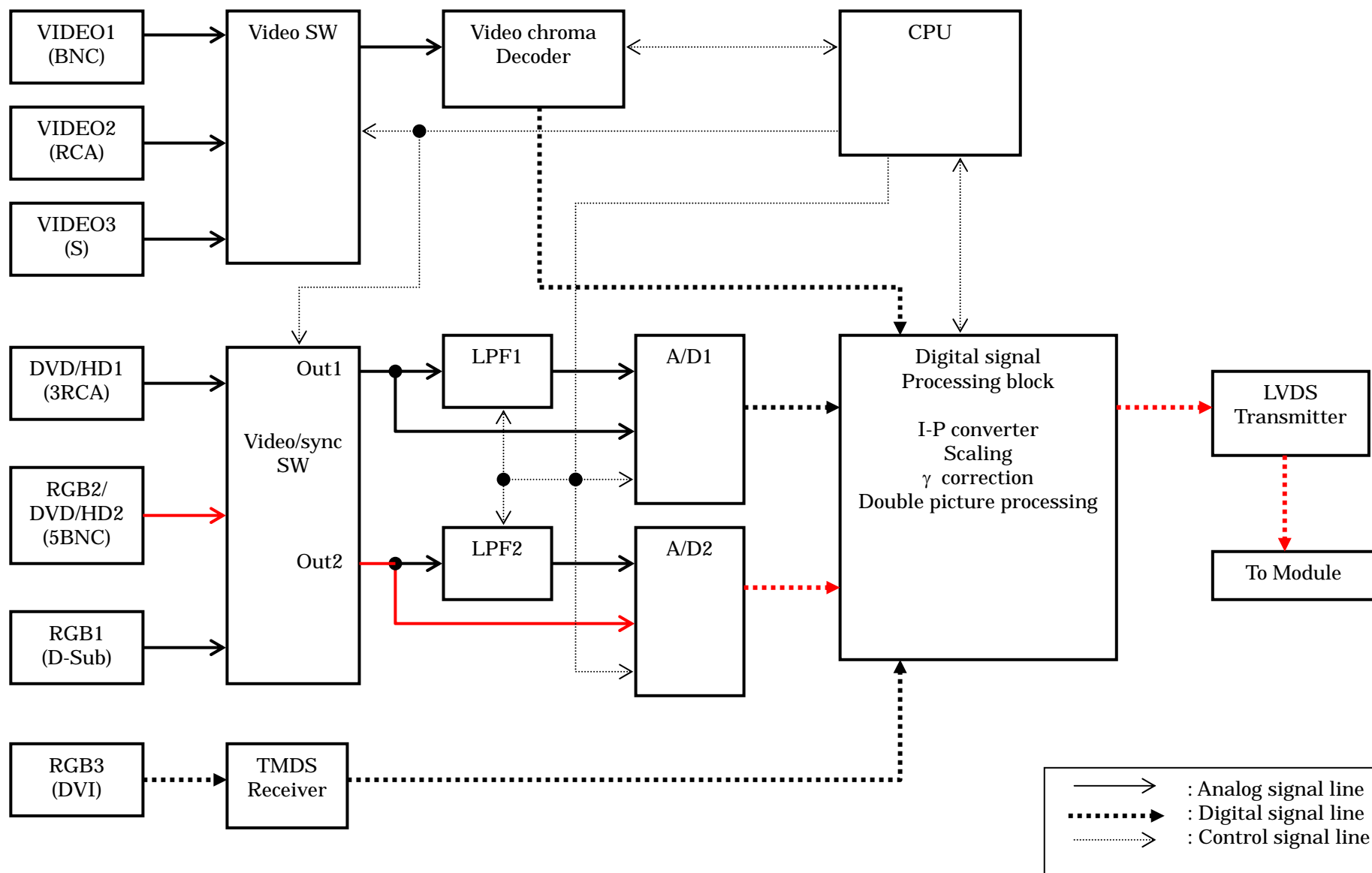


② Operational descriptions

- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 and it is digitized there.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(4) PC signal inputs (RGB2 (5BNC) input)

① Block operation diagram: Red lines show the flow of signals.

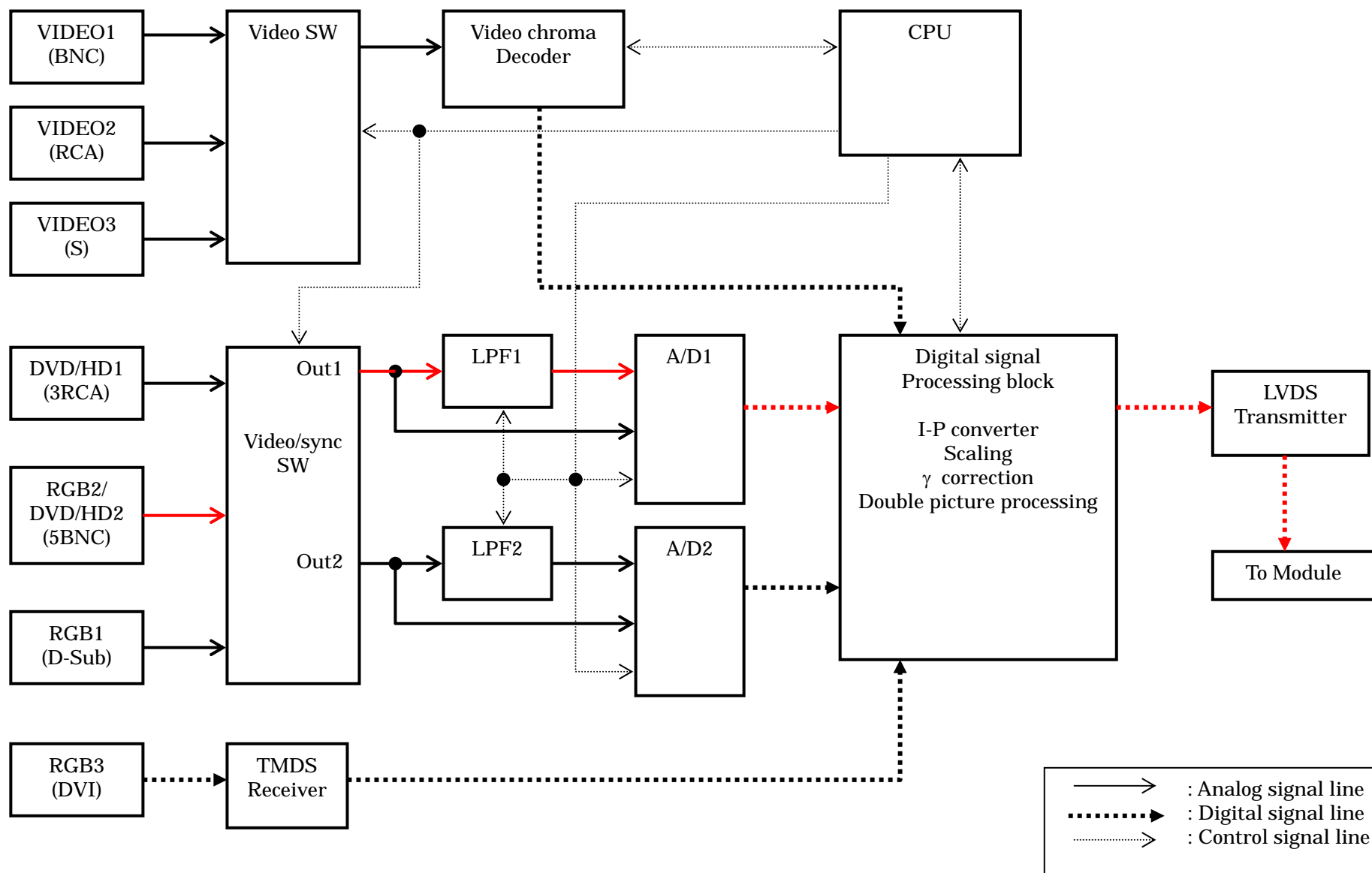


② Operational descriptions

- The PC signal entered from the RGB2 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 and it is digitized there.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(5) Chroma signal inputs (DVD/HD2 (5BNC) input)

① Block operation diagram: Red lines show the flow of signals.



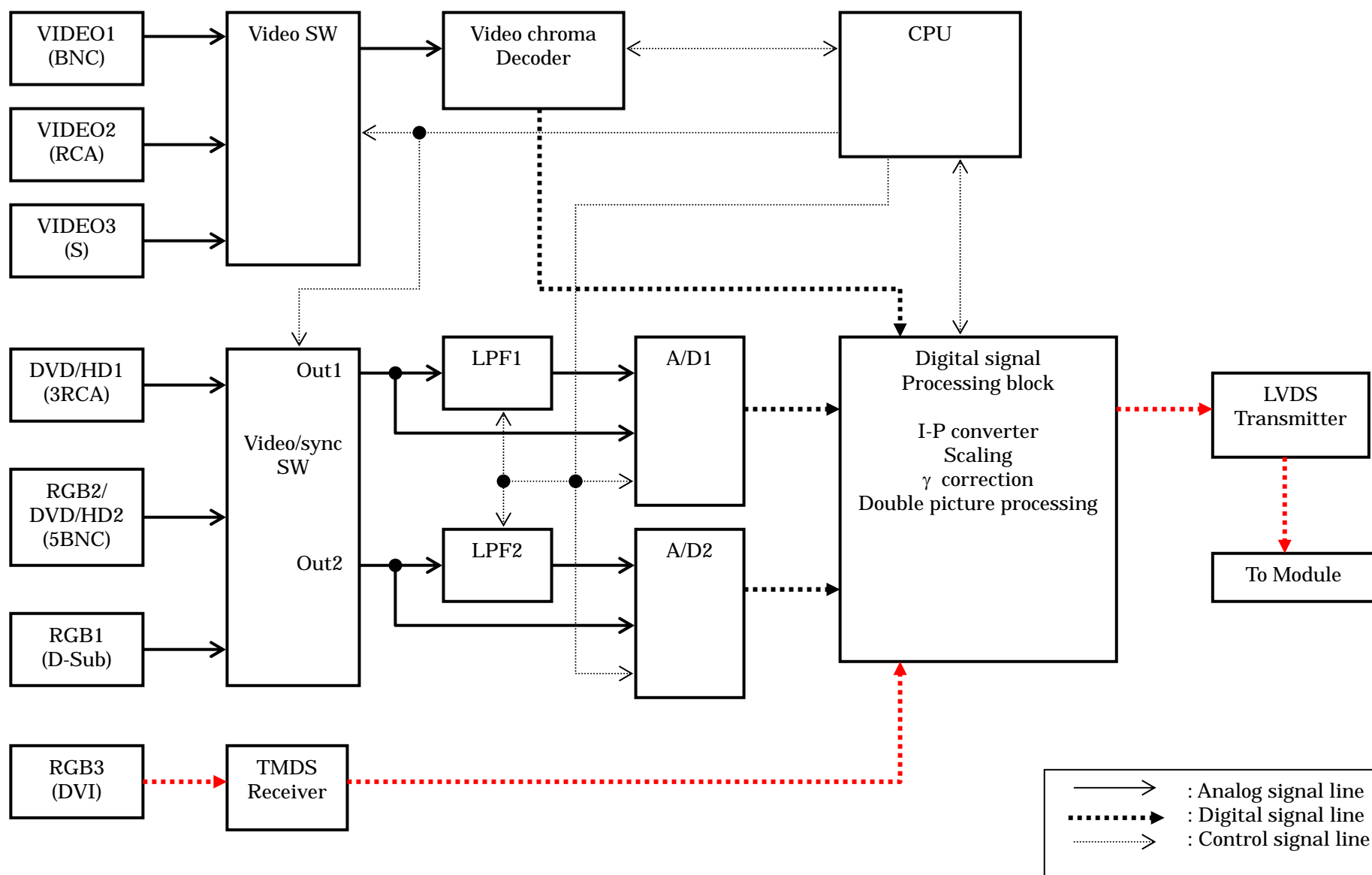
② Operational descriptions

- The chroma signal entered from the DVD/HD2 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.



(6) PC signal inputs [RGB3 (DVI) input]

① Block operation diagram: Red lines show the flow of signals.



② Operational descriptions

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

3. Dual screen display

(1) Basic combination diagram

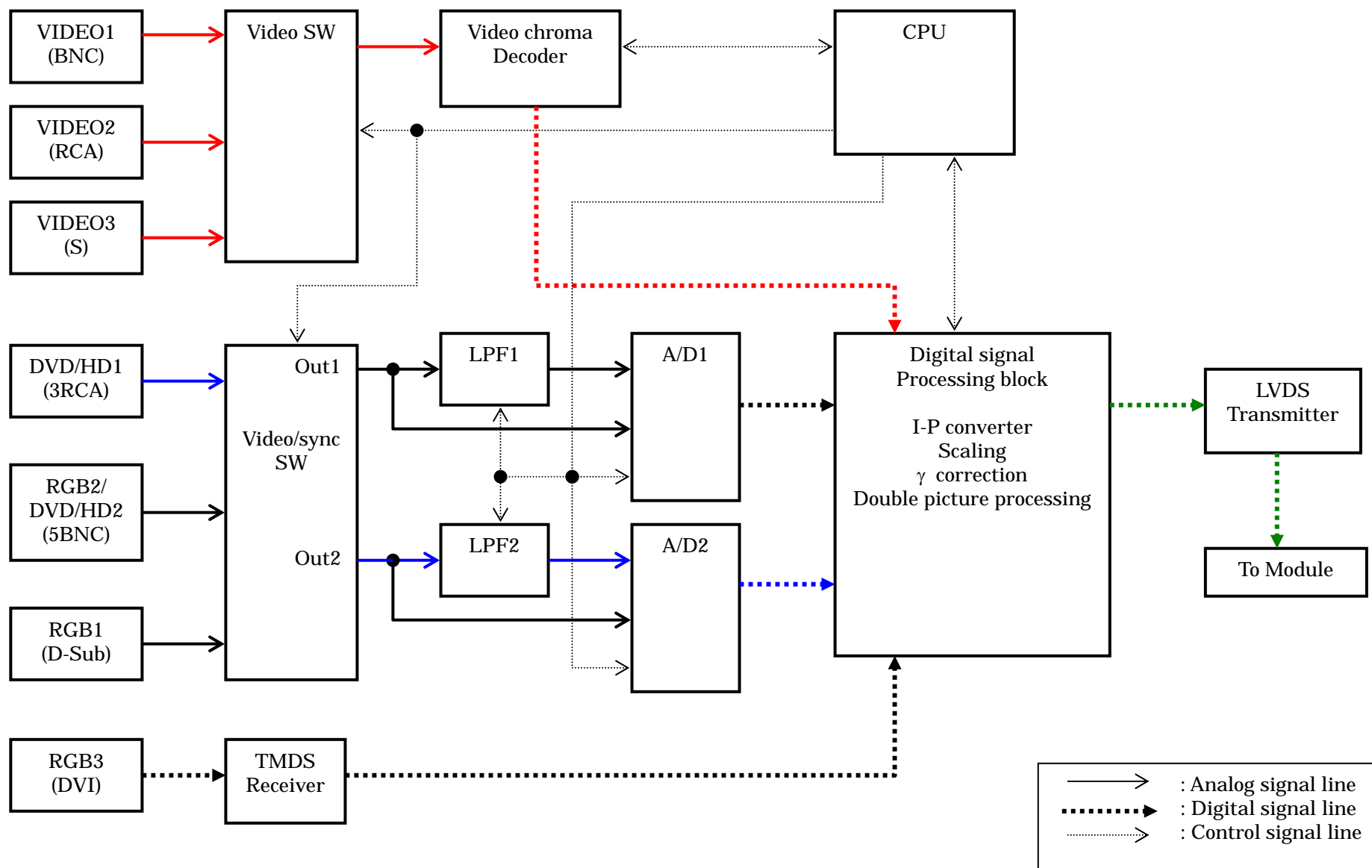
Main Sub	Video1,2,3	DVD/HD1 (3RCA)	DVD/HD2 (5BNC)	RGB1 (D-Sub)	RGB2 (5BNC)	RGB3 (DVI)
Video1,2,3		OK	OK	OK	OK	OK
DVD/HD1 (3RCA)	OK		OK	OK	OK	OK
DVD/HD2 (5BNC)	OK	OK		OK	NG	OK
RGB1 (D-Sub)	OK	OK	OK		OK	OK
RGB2 (5BNC)	OK	OK	NG	OK		OK
RGB3 (DVI)	OK	OK	OK	OK	OK	

The flow of signals in relation to the above-mentioned combinations is described below.

3-1. Video 1, 2, 3 for Main

(1) When Sub is for chroma signal (DVD/HD1 (3RCA)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, g correction, and others is carried out.

Sub side

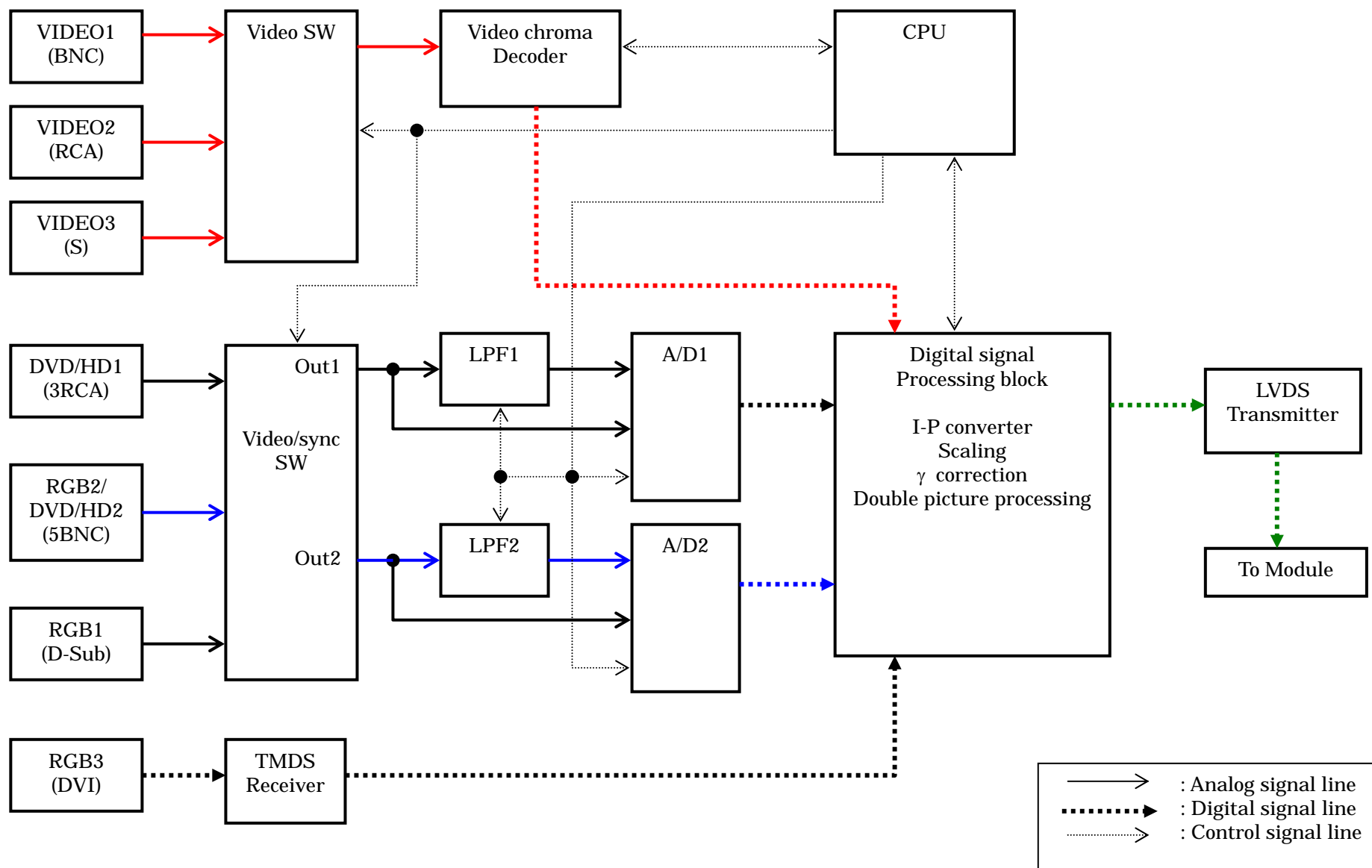
- The chroma signal entered from the DVD/HD1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 passes through the LPF2 and is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(2) When Sub is for chroma signal (DVD/HD2 (5BNC)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

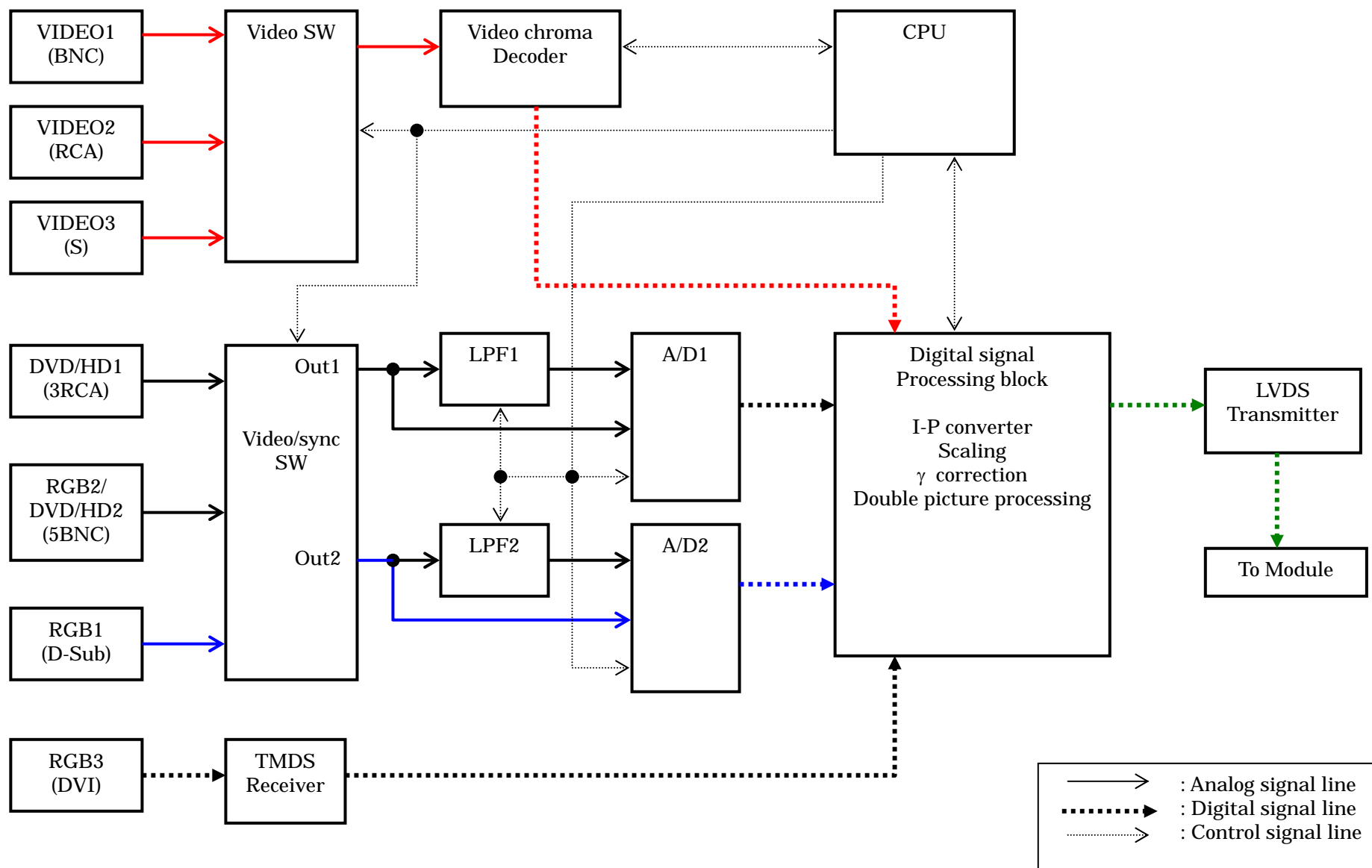
- The chroma signal entered from the DVD/HD2 is output from the out2 side through the Video/sync SW.
- The signal output from out2 passes through the LPF2 and is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(3) When Sub is for PC signal (RGB1 (D-Sub)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

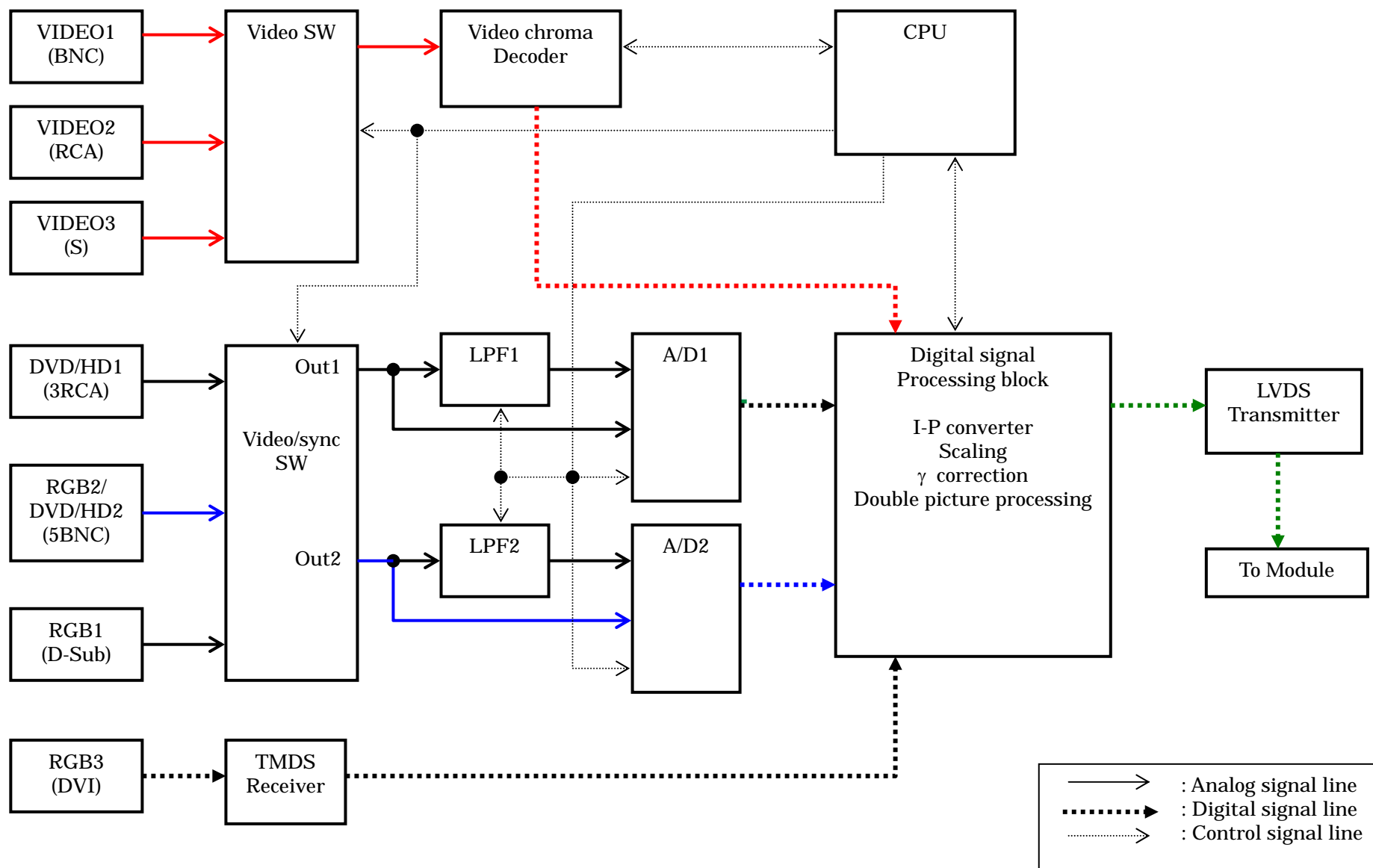
- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(4) When Sub is for PC signal (RGB2 (5BNC)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

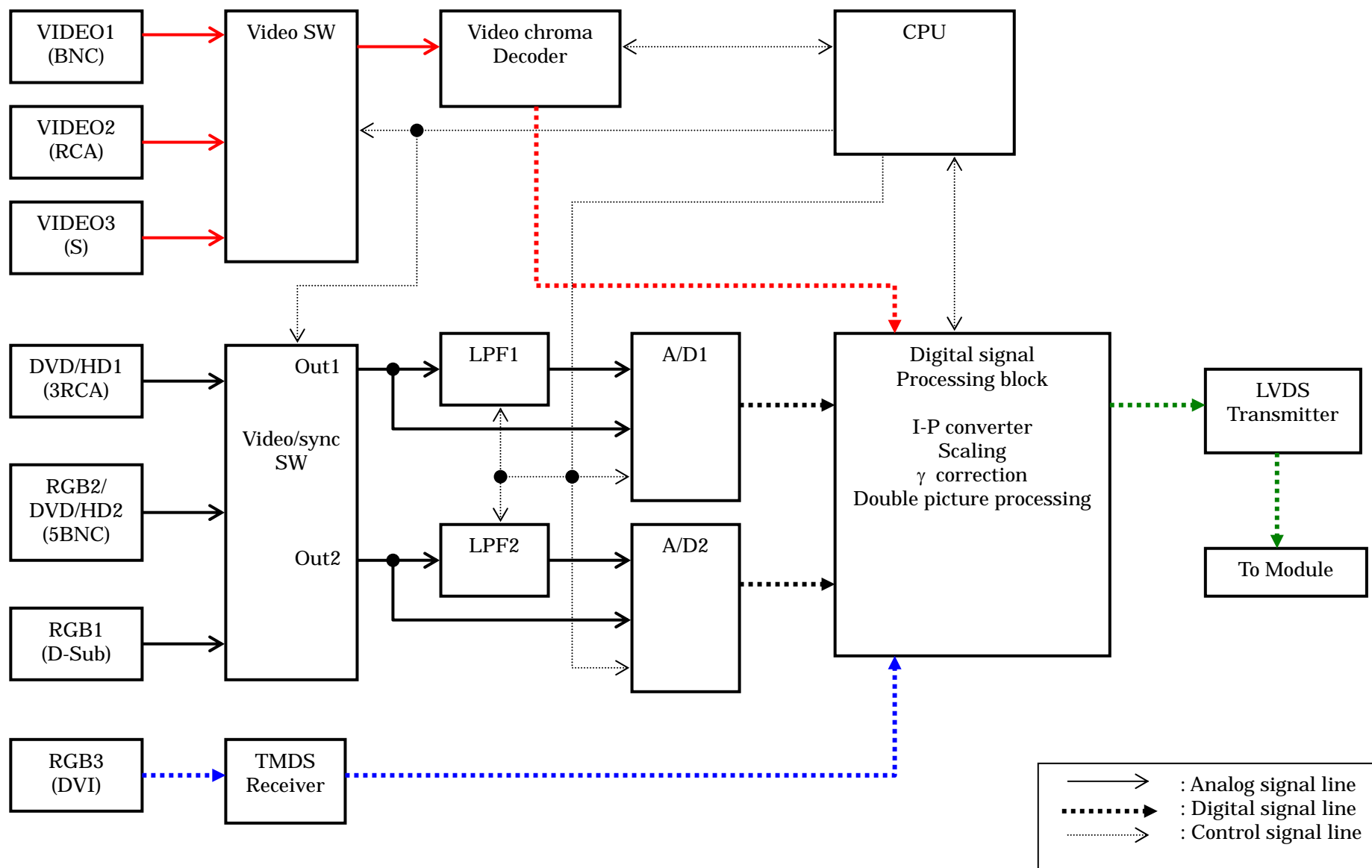
- The PC signal entered from the RGB2 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(5) When Sub is for PC signal (RGB3 (DVI)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

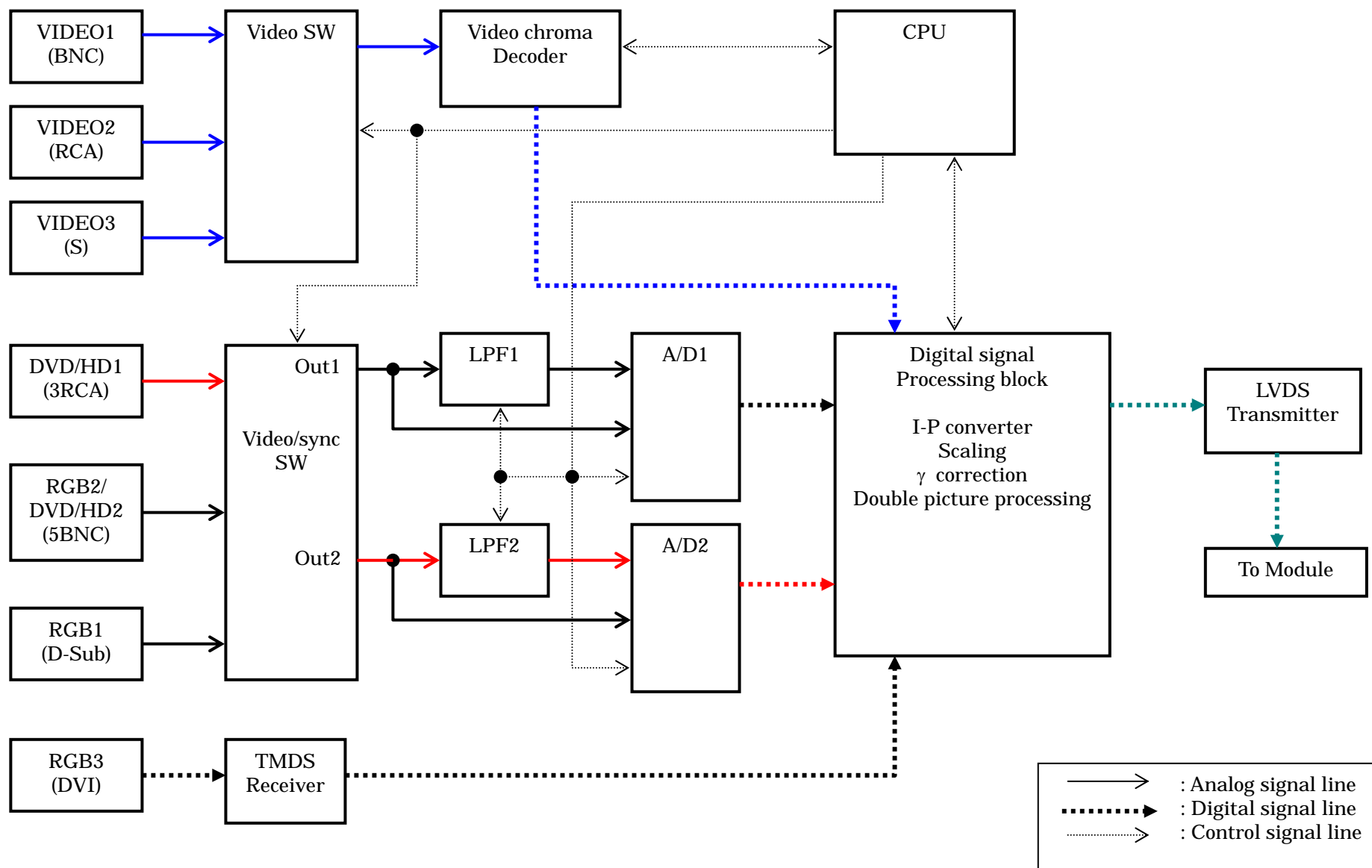
Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

3-2. Chroma signal (DVD/HD1) input for Main

(1) When Sub is for Video 1, 2, 3 input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 passes through the LPF2 and is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, g correction, and others is carried out.

Sub side

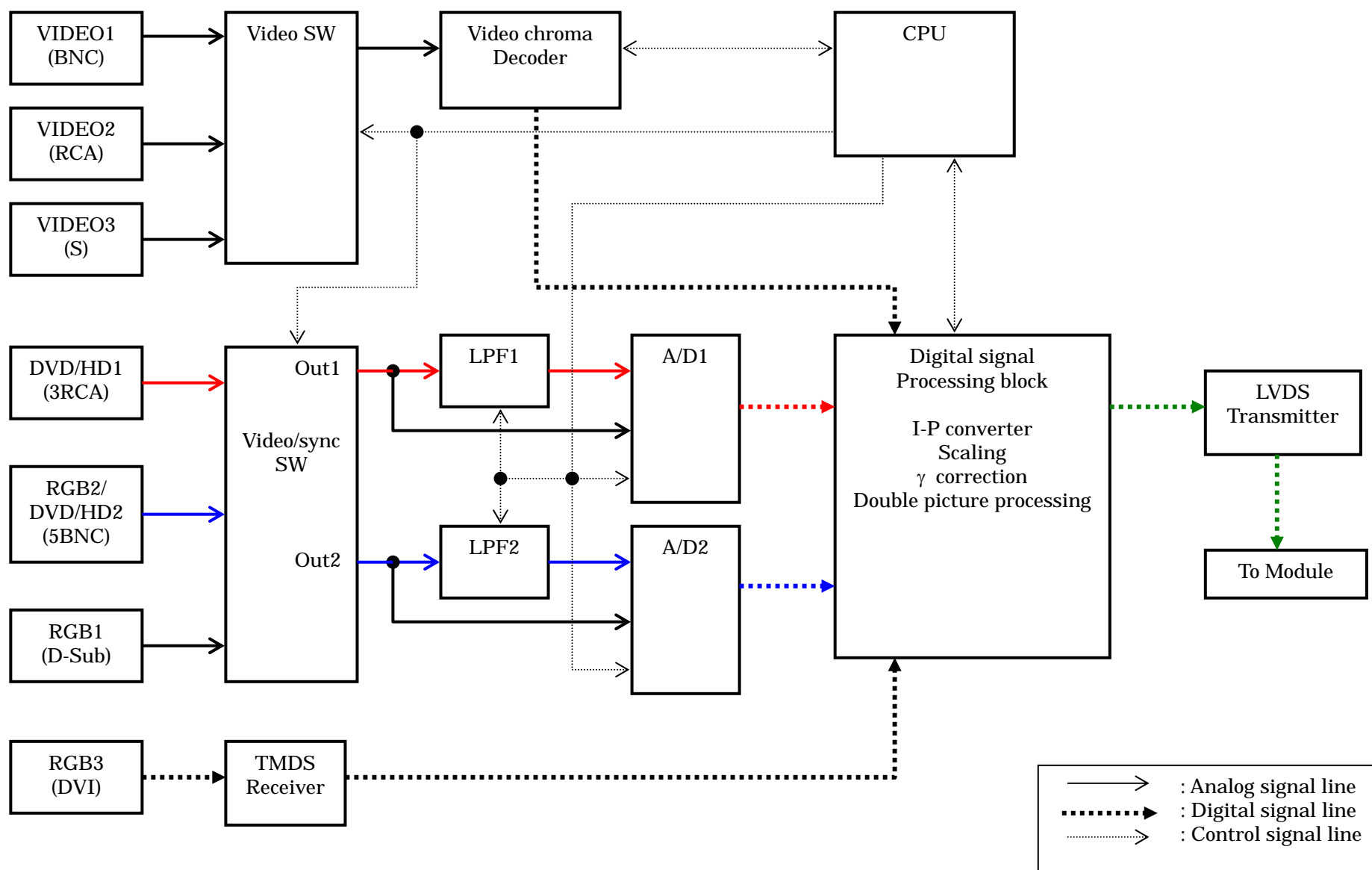
- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, g correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(2) When Sub is for chroma signal (DVD/HD2 (5BNC)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

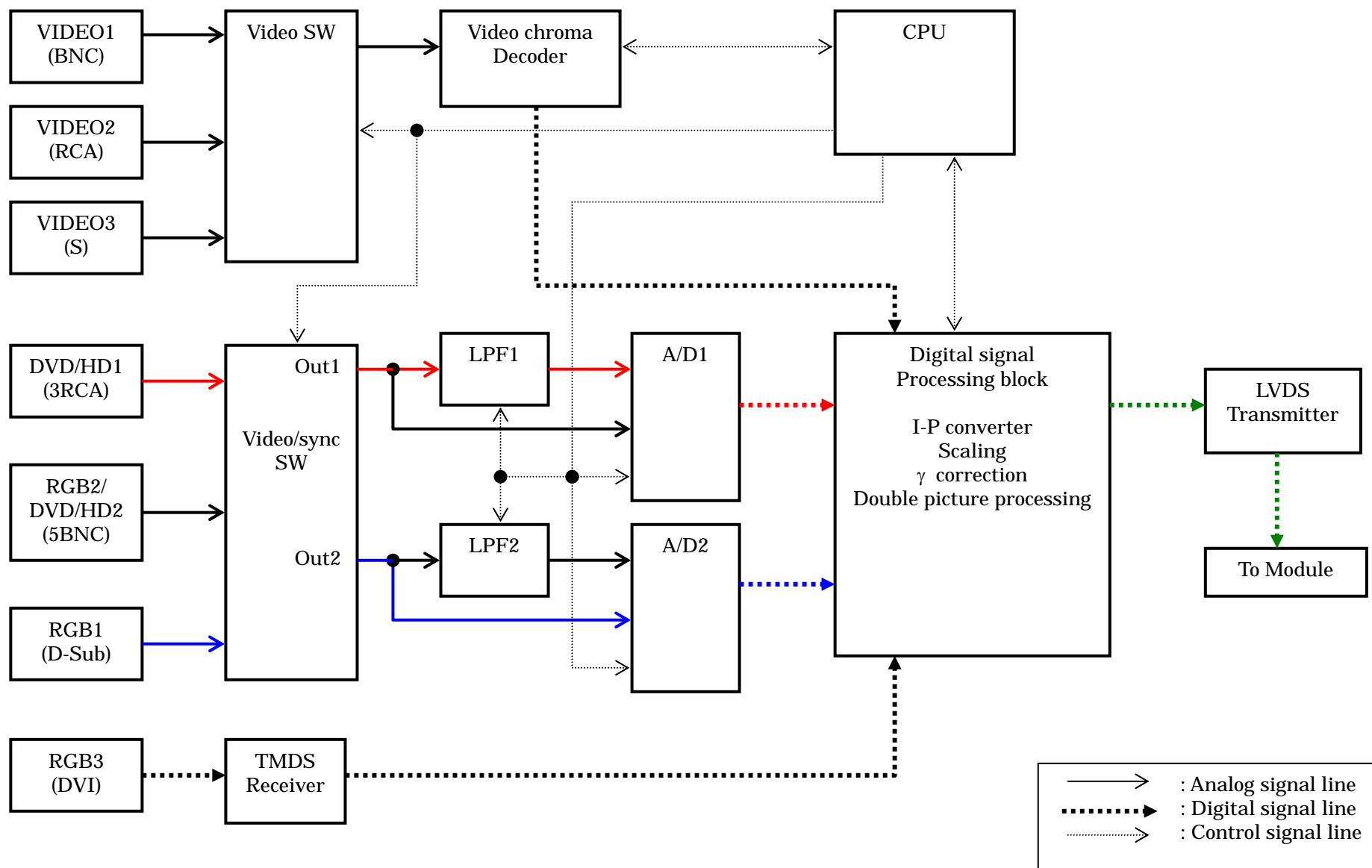
- The chroma signal entered from the DVD/HD2 is output from the out2 side through the Video/sync SW.
- The signal output from out2 passes through the LPF2 and is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(3) When Sub is for PC signal (RGB1 (D-Sub)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

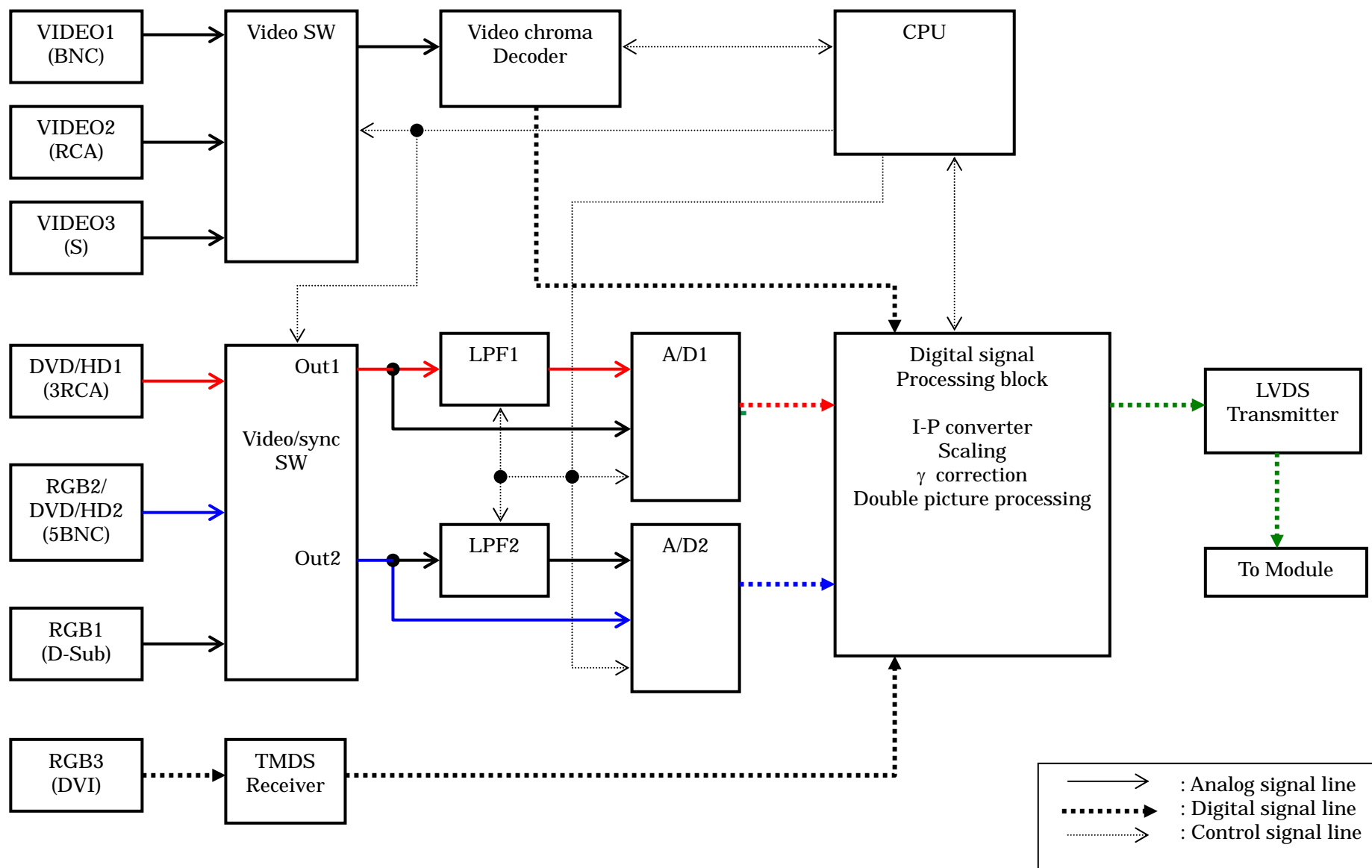
- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(4) When Sub is for PC signal (RGB2 (5BNC)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, g correction, and others is carried out.

Sub side

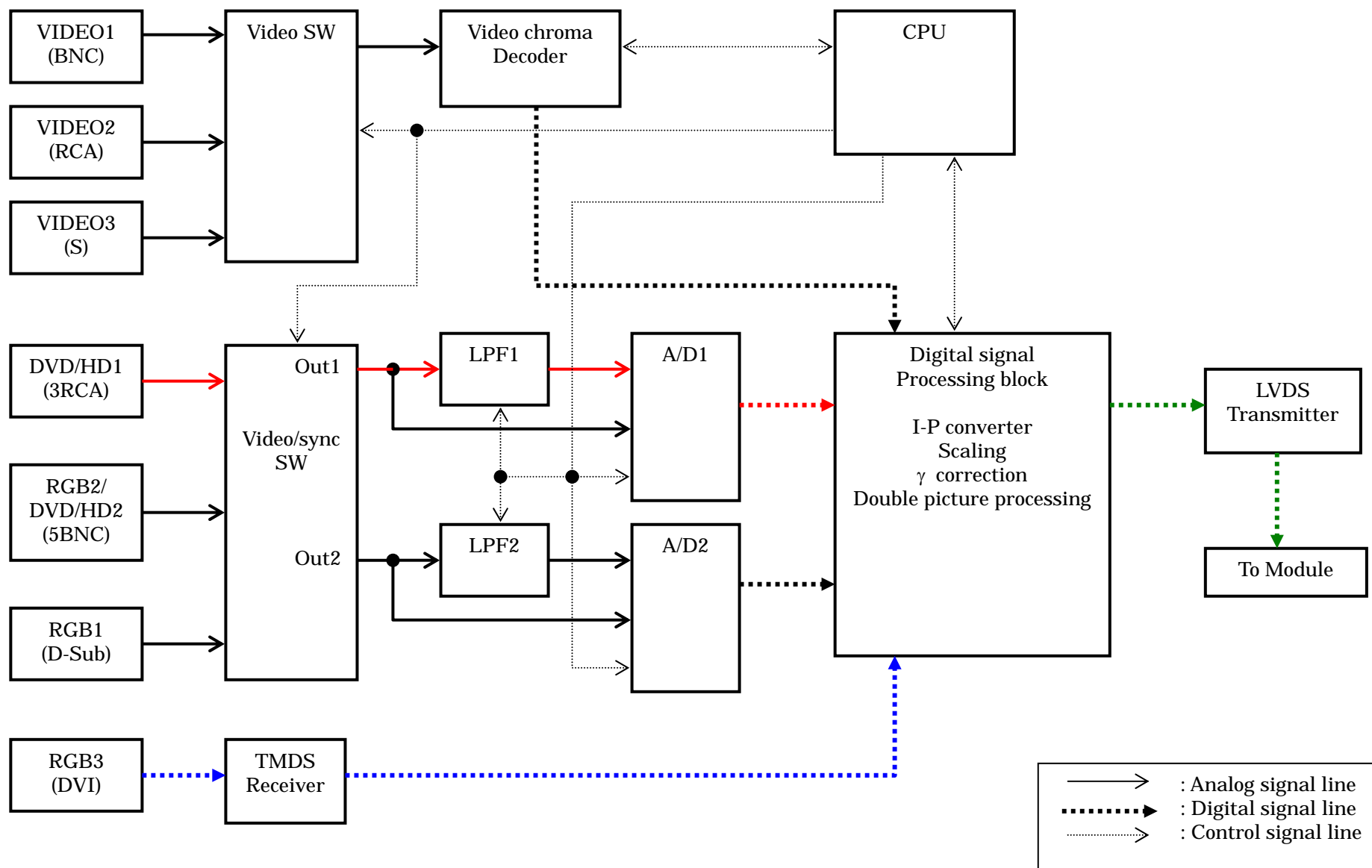
- The PC signal entered from the RGB2 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, g correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(5) When Sub is for PC signal (RGB3 (DVI)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

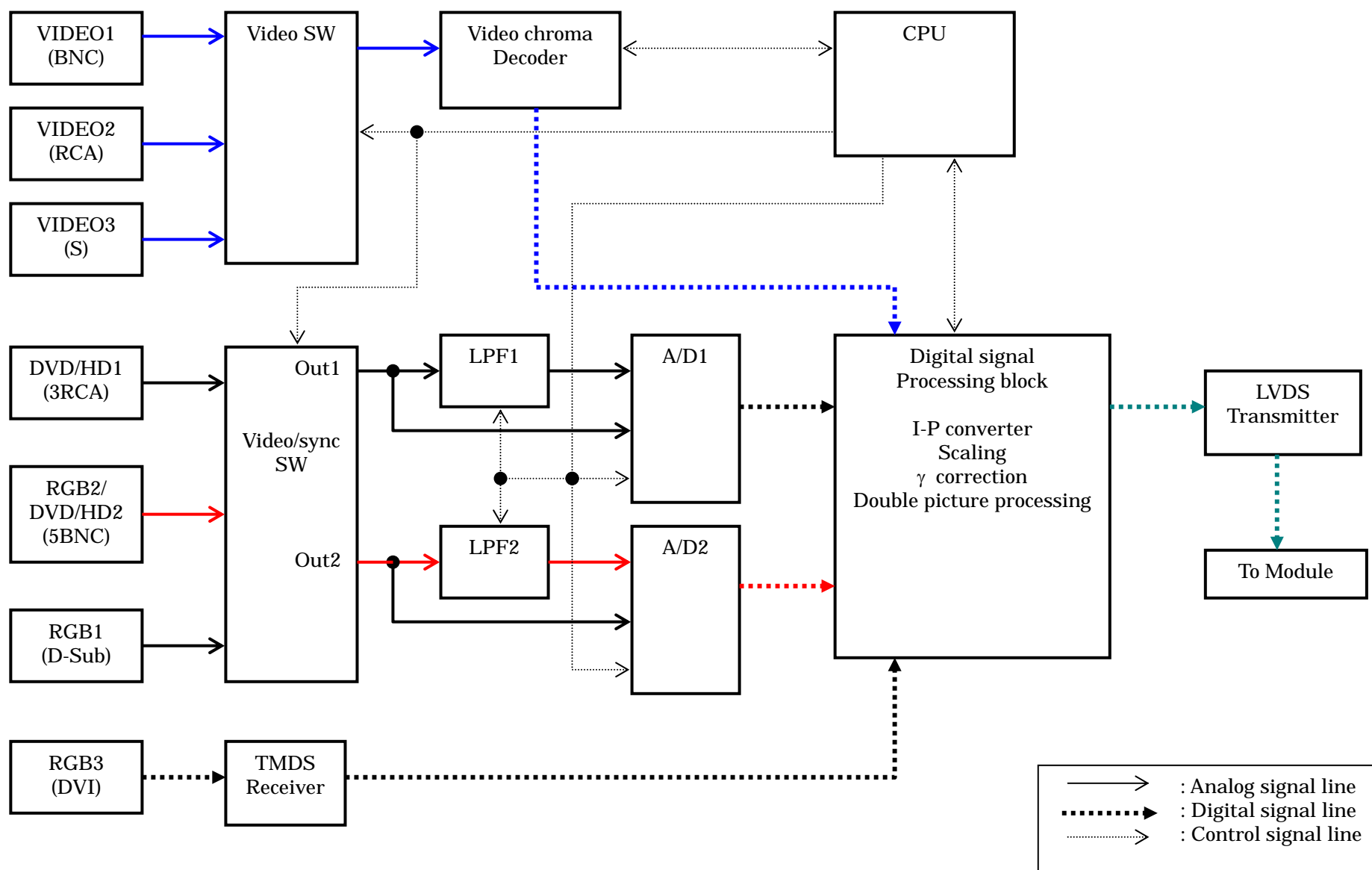
Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

3-3. Chroma signal (DVD/HD2) input for Main

(1) When Sub is for Video 1, 2, 3 input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD2 is output from the out2 side through the Video/sync SW.
- The signal output from out2 passes through the LPF2 and is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

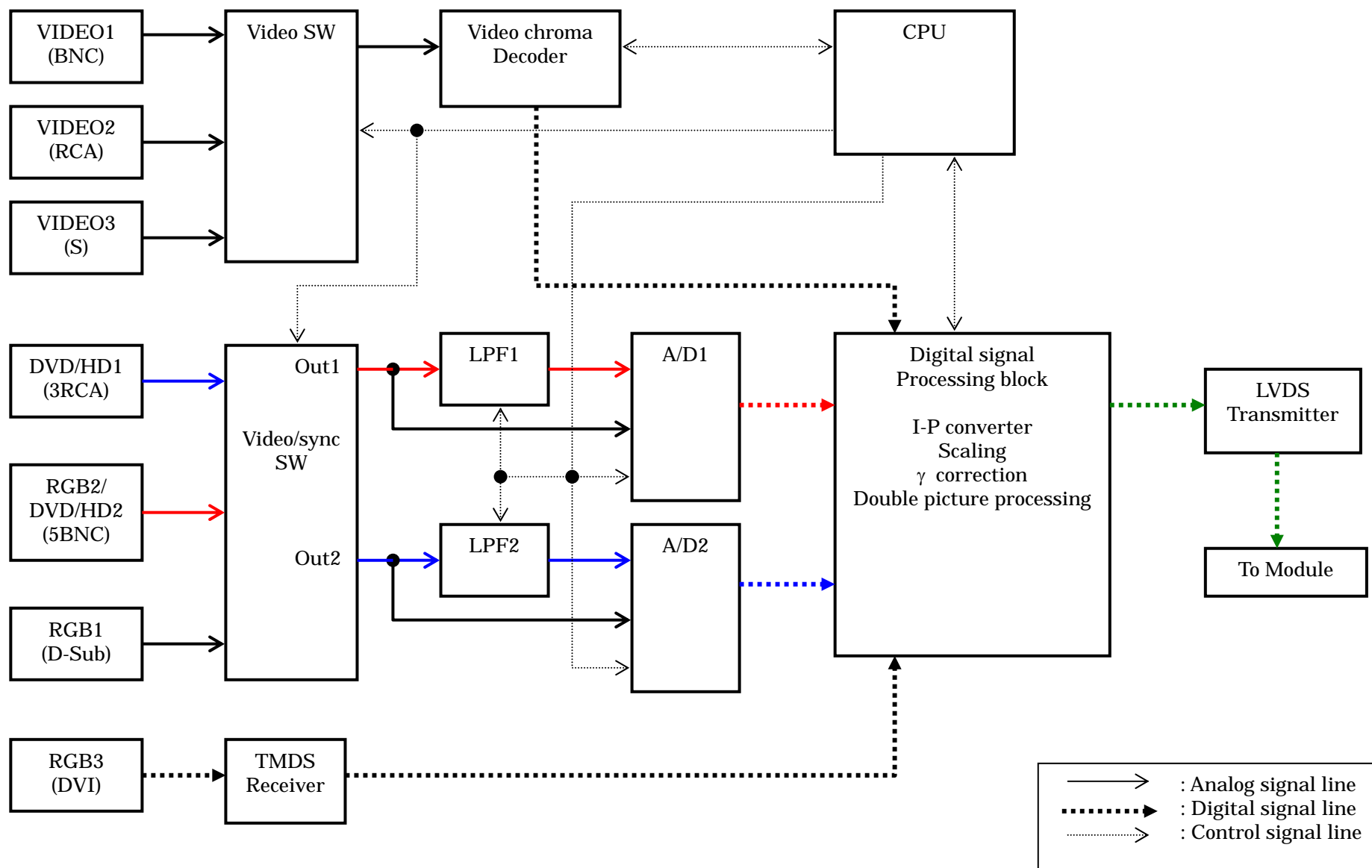
- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(2) When Sub is for chroma signal (DVD/HD1 (3RCA)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

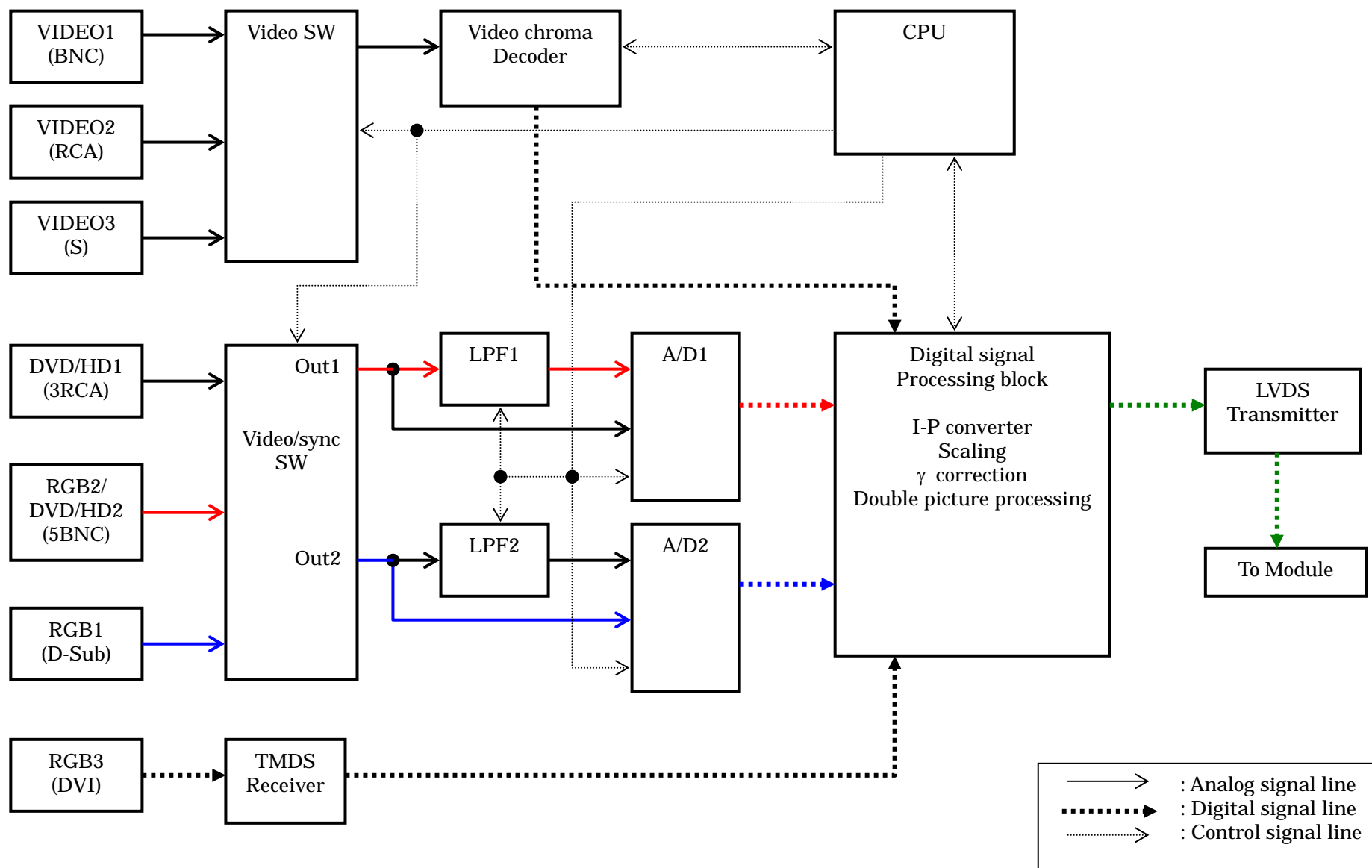
- The chroma signal entered from the DVD/HD1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 passes through the LPF2 and is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(3) When Sub is for PC signal (RGB1 (D-Sub)) input

①Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD2 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

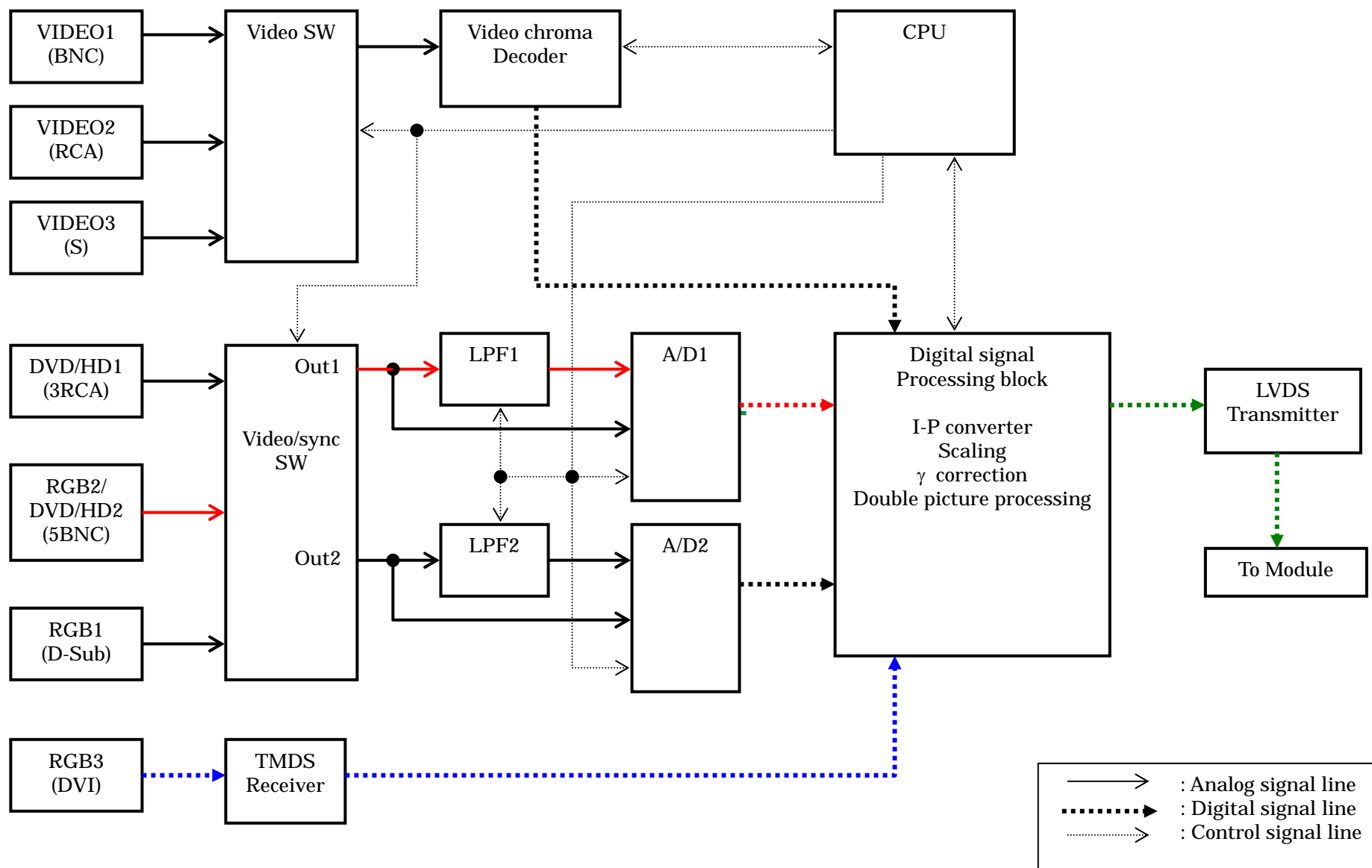
- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(4) When Sub is for PC signal (RGB3 (DVI)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The chroma signal entered from the DVD/HD2 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

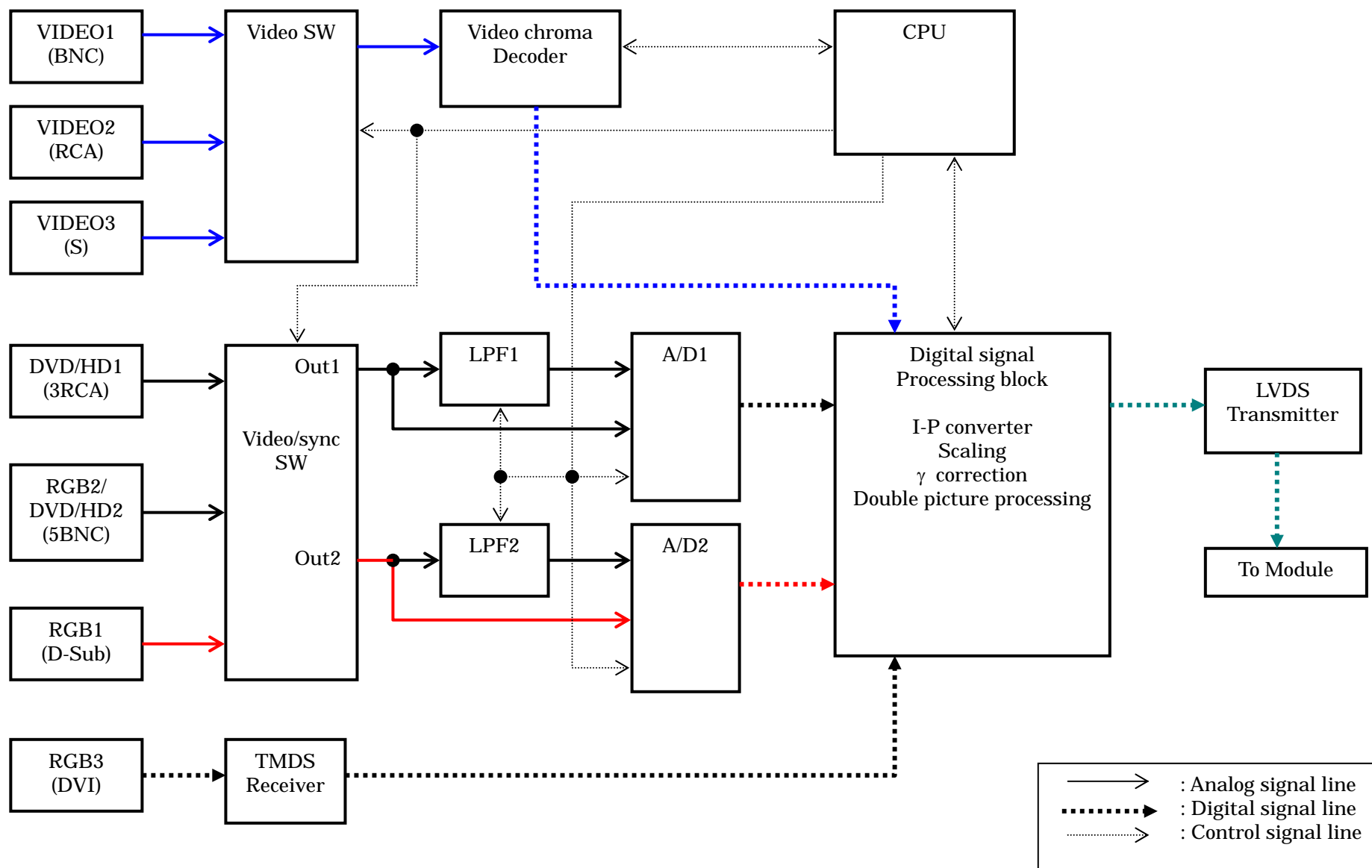
Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

3-4. PC signal (RGB1) input for Main

(1) When Sub is for Video 1, 2, 3 input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

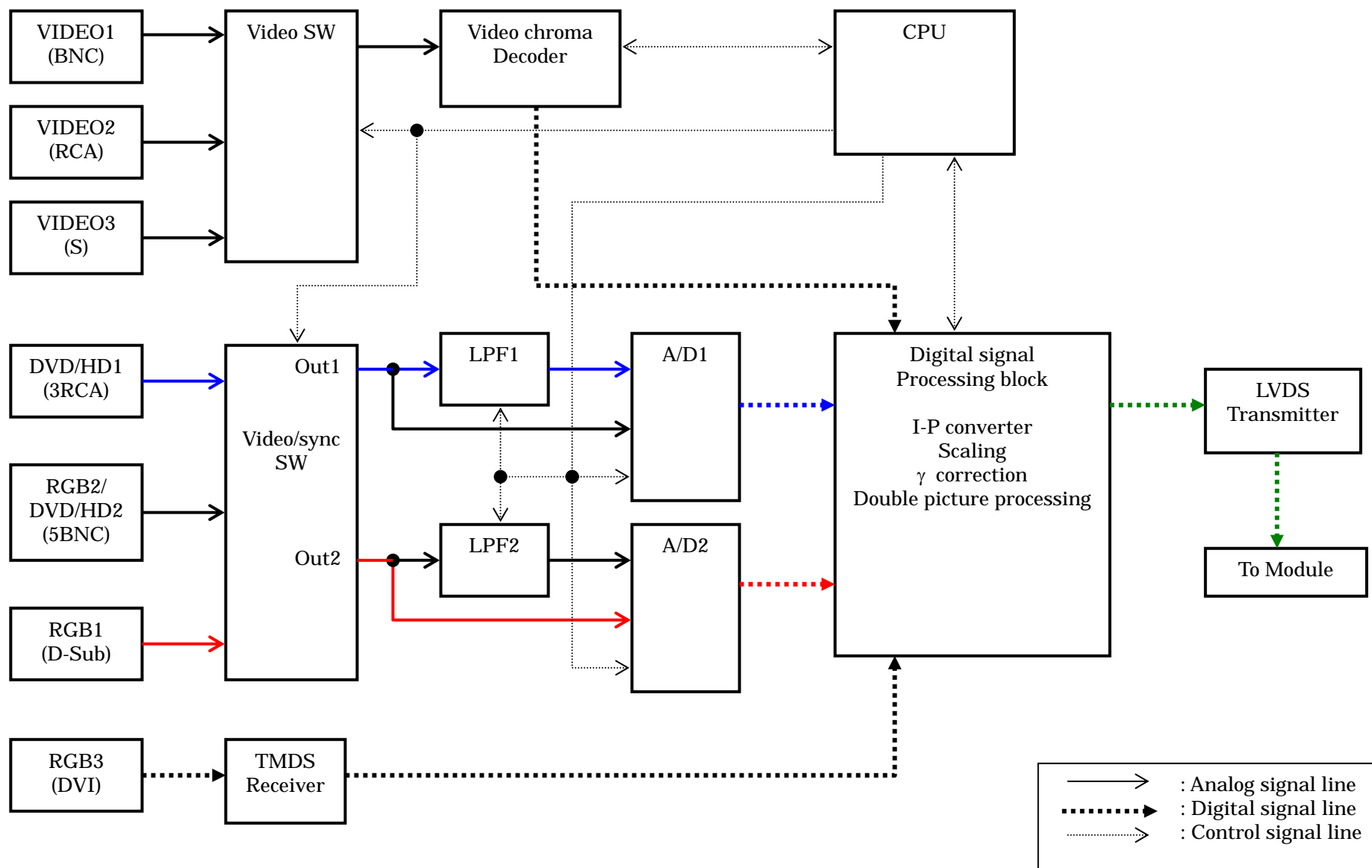
- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(2) When Sub is for chroma signal (DVD/HD1 (3RCA) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

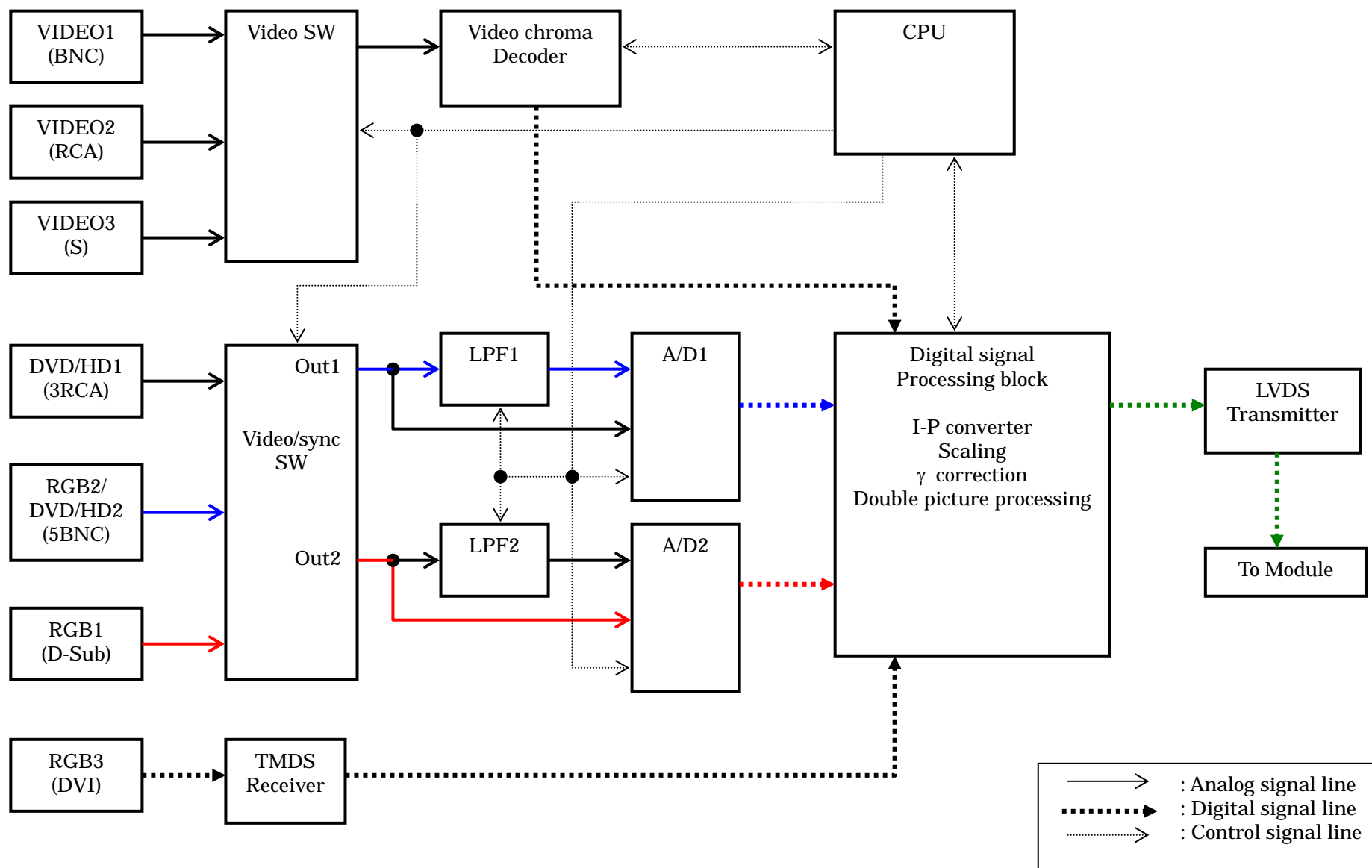
- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LP1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(3) When Sub is for chroma signal (DVD/HD2 (5BNC)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

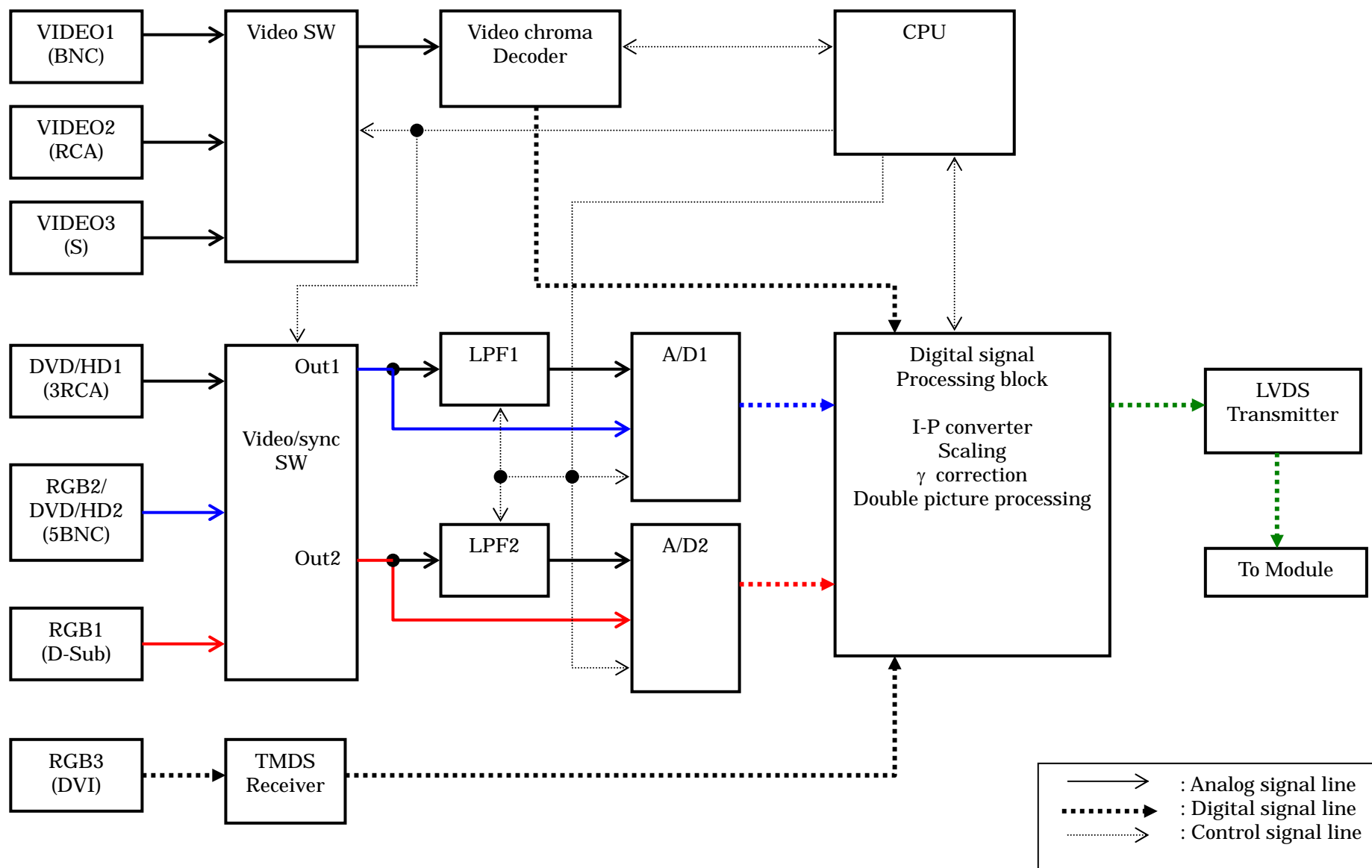
- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LP1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(4) When Sub is for chroma signal (RGB2 (5BNC)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

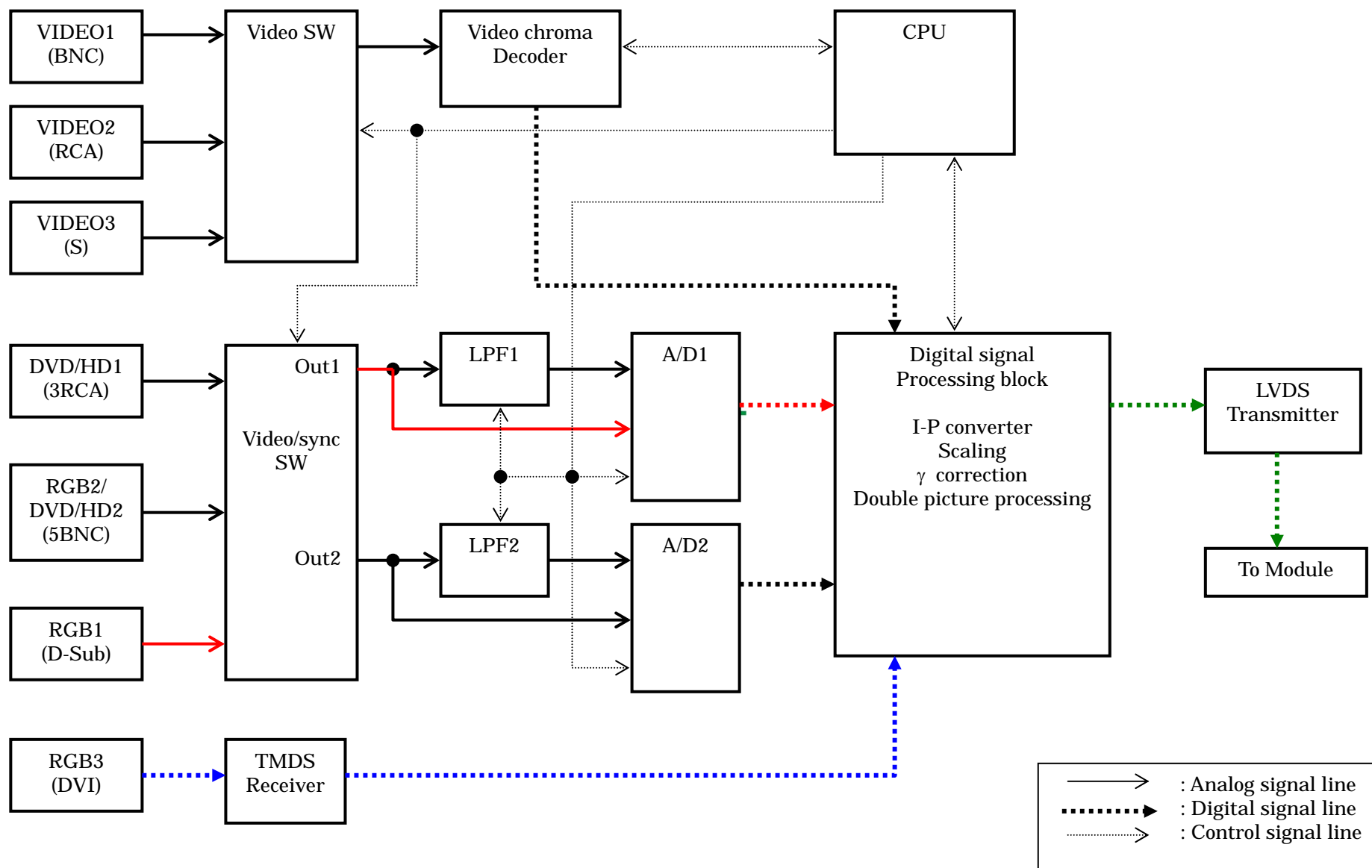
- The PC signal entered from the RGB2 is output from the out1 side through the Video/sync SW.
- The signal output from out1 is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(5) When Sub is for PC signal (RGB3 (DVI)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

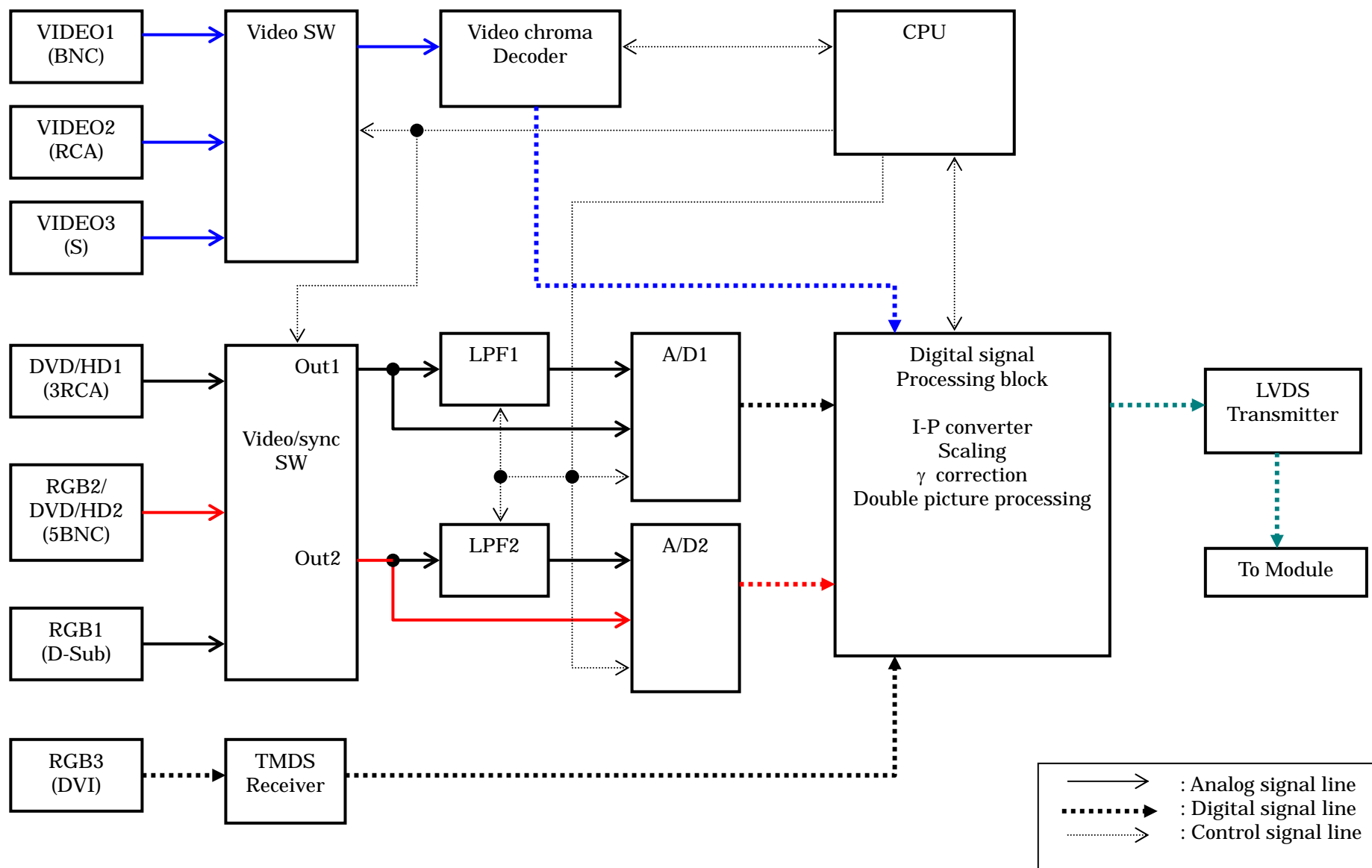
Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

3-5. PC signal (RGB2) input for Main

(1) When Sub is for Video 1, 2, 3 input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB2 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

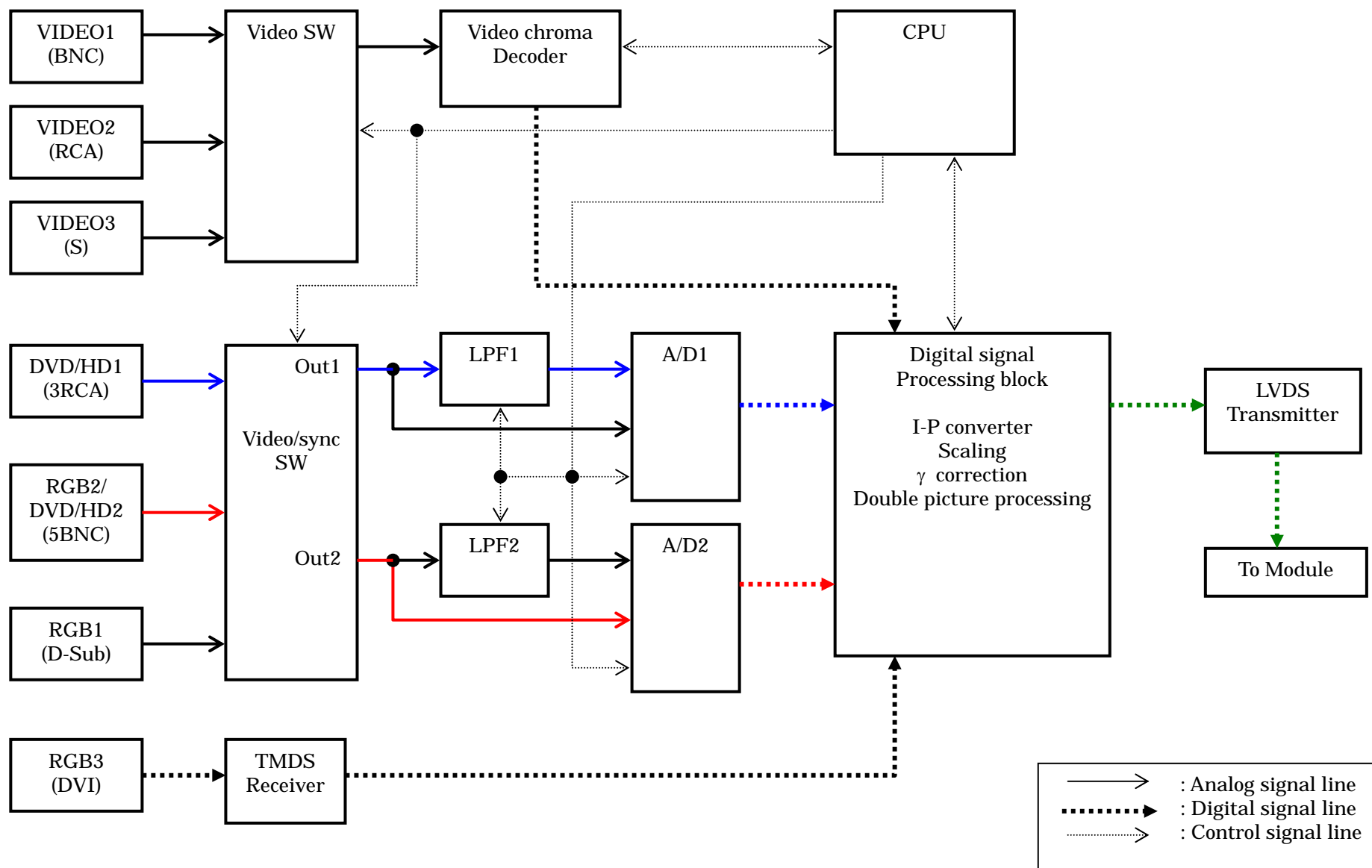
- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(2) When Sub is for chroma signal (DVD/HD1 (3RCA)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB2 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

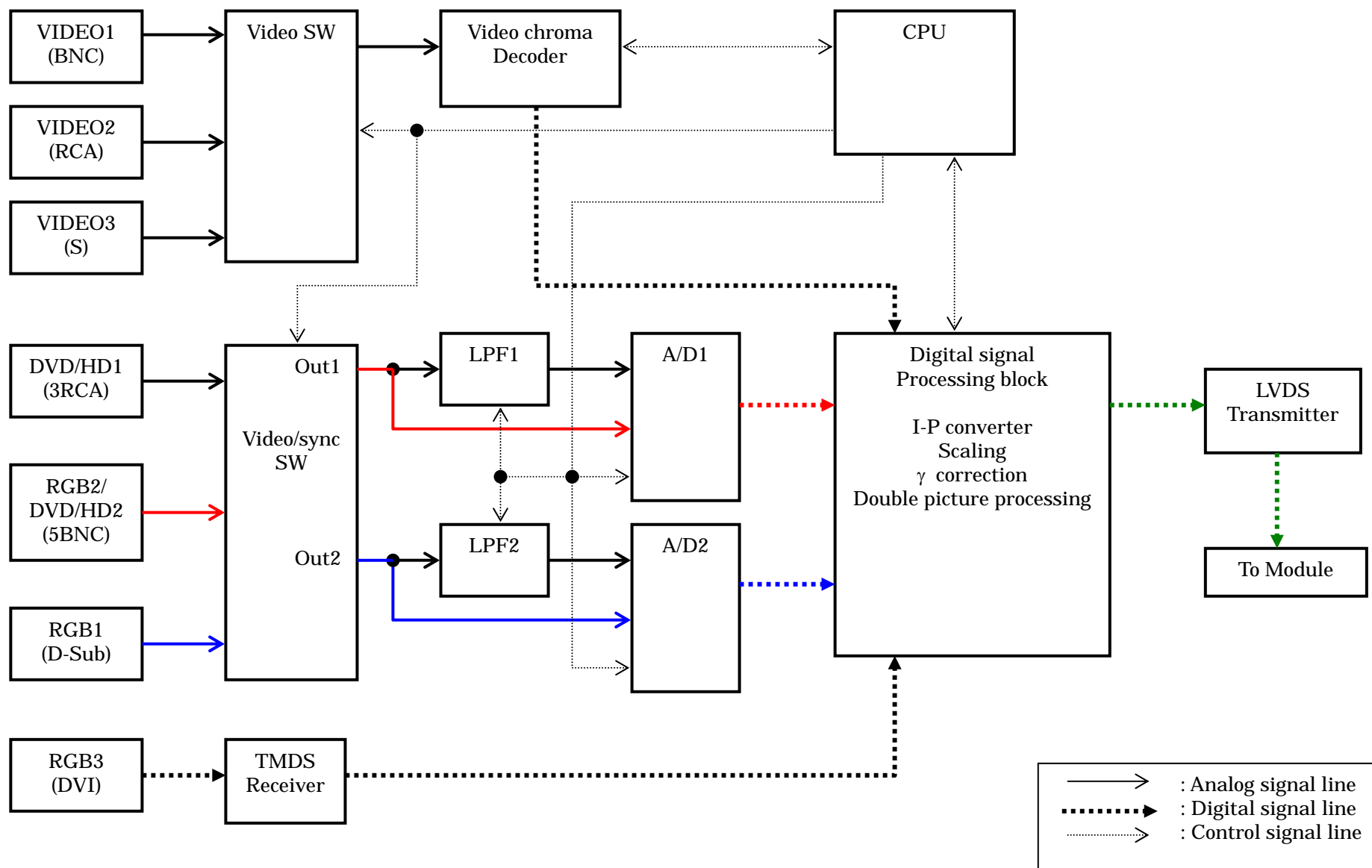
- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(3) When Sub is for PC signal (RGB1 (D-Sub)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB2 is output from the out1 side through the Video/sync SW.
- The signal output from out1 is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

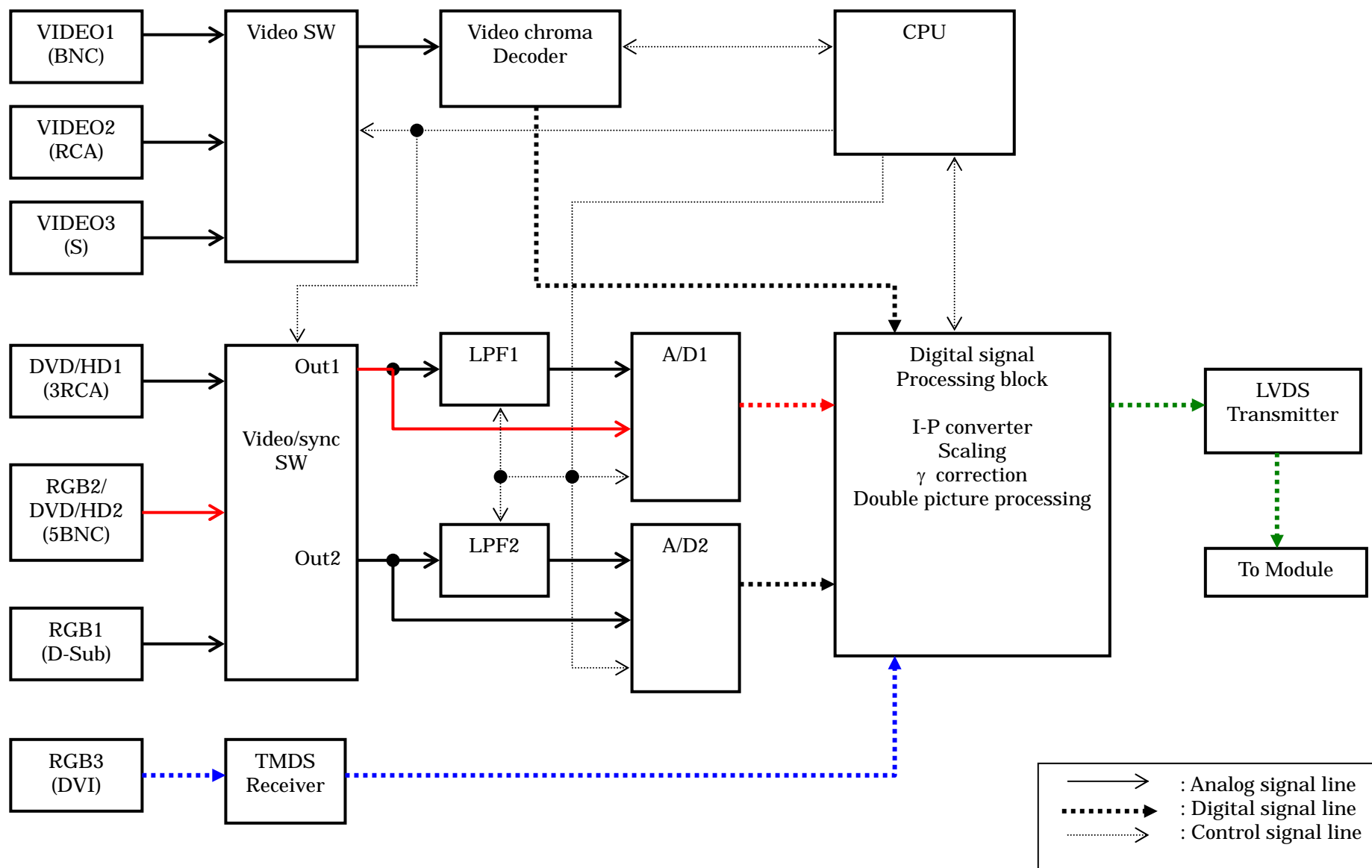
- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(4) When Sub is for PC signal (RGB3 (DVI)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB2 is output from the out1 side through the Video/sync SW.
- The signal output from out1 is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Sub side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

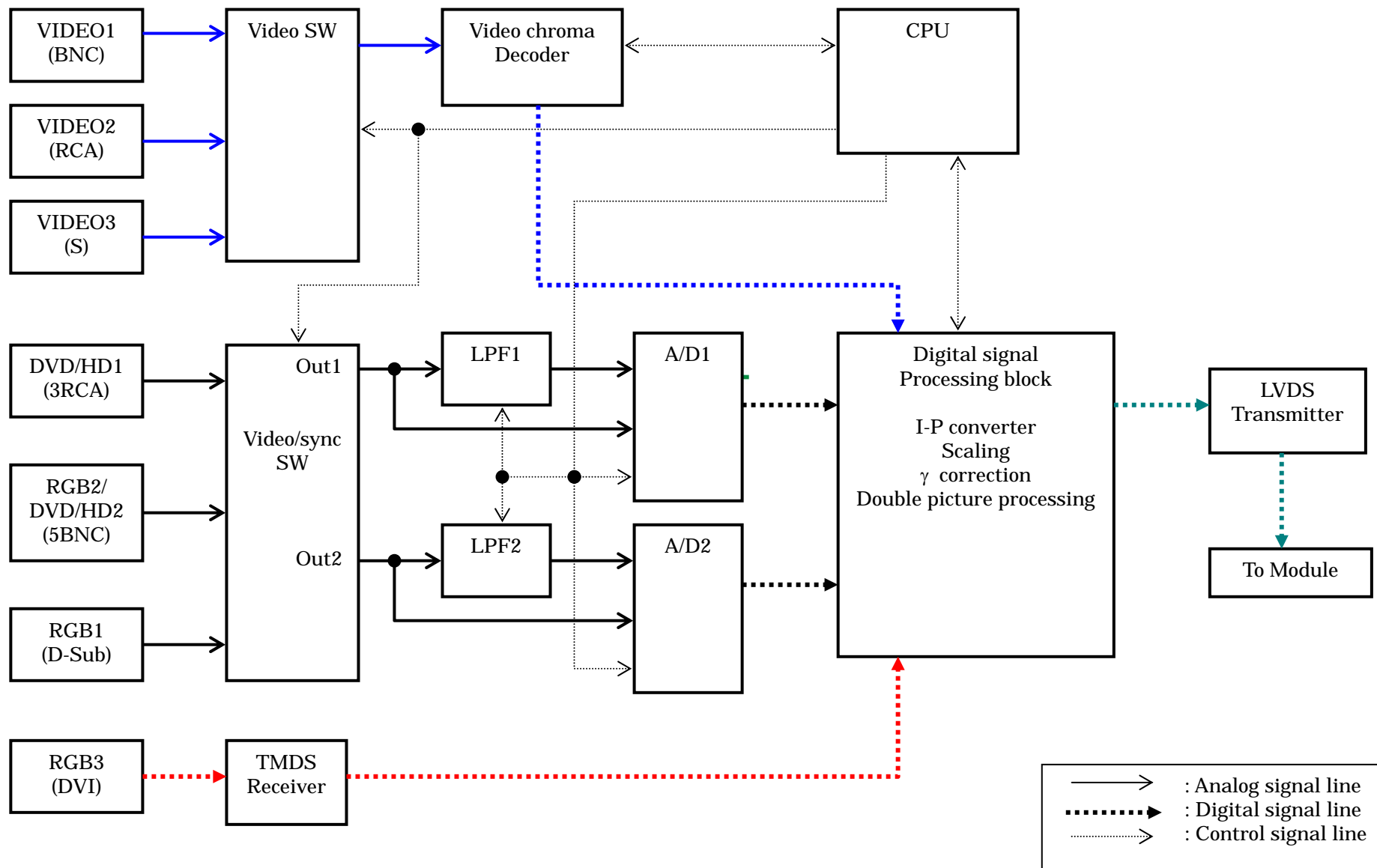
Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

3-6. PC signal (RGB3) input for Main

(1) When Sub is for Video 1, 2, 3 input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

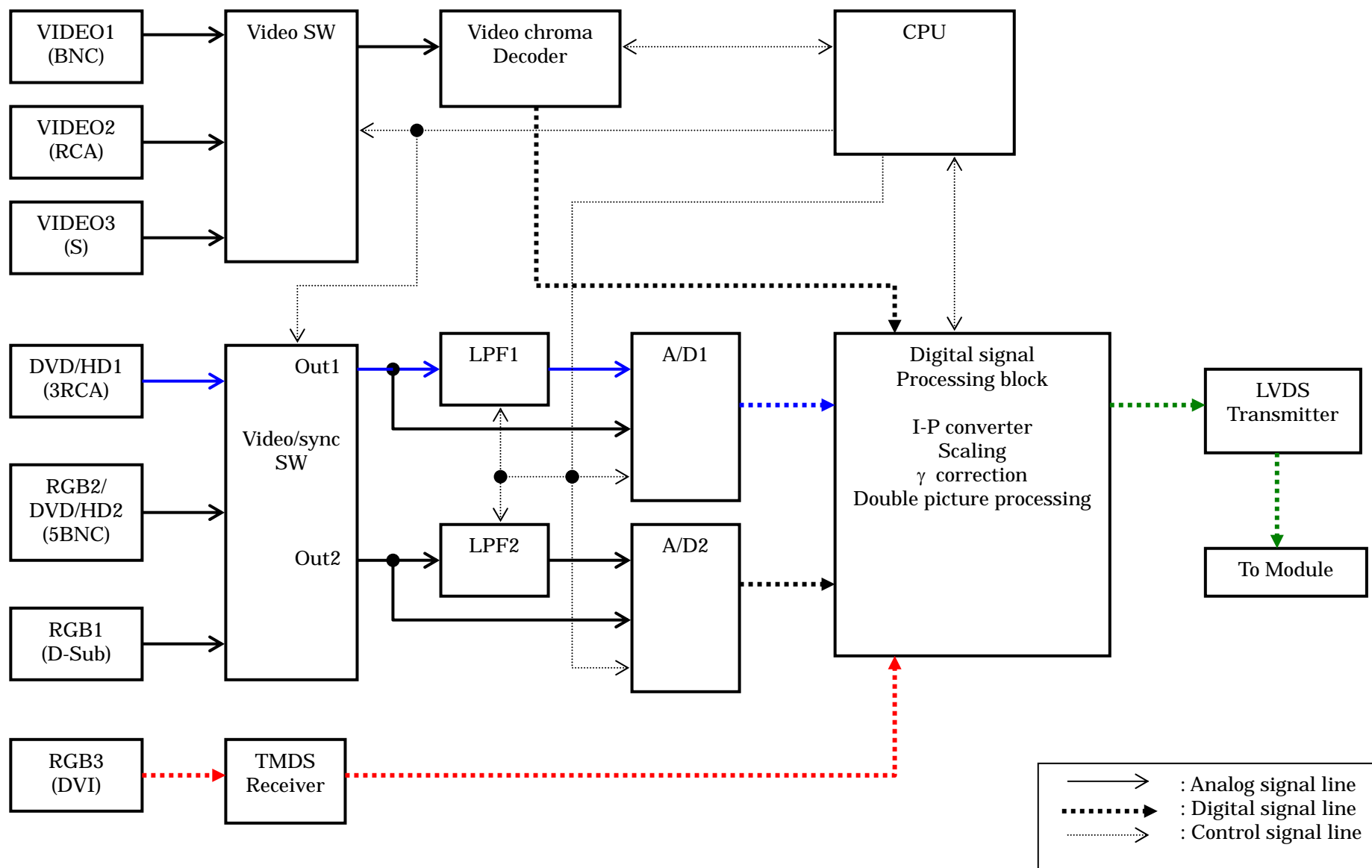
- The signal out of Video1,2,3, selected with Video SW, is entered in the Video chroma decoder.
- When the entered input is a Composite signal (Video1,2), Y/C separation is carried out in the Video chroma decoder. No Y/C separation is carried out in the case of an S signal (Video3) input.
- The Y/C-separated signal is converted into a chroma signal in the Video chroma decoder. The converted signal is further digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(2) When Sub is for chroma signal (DVD/HD1 (3RCA)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

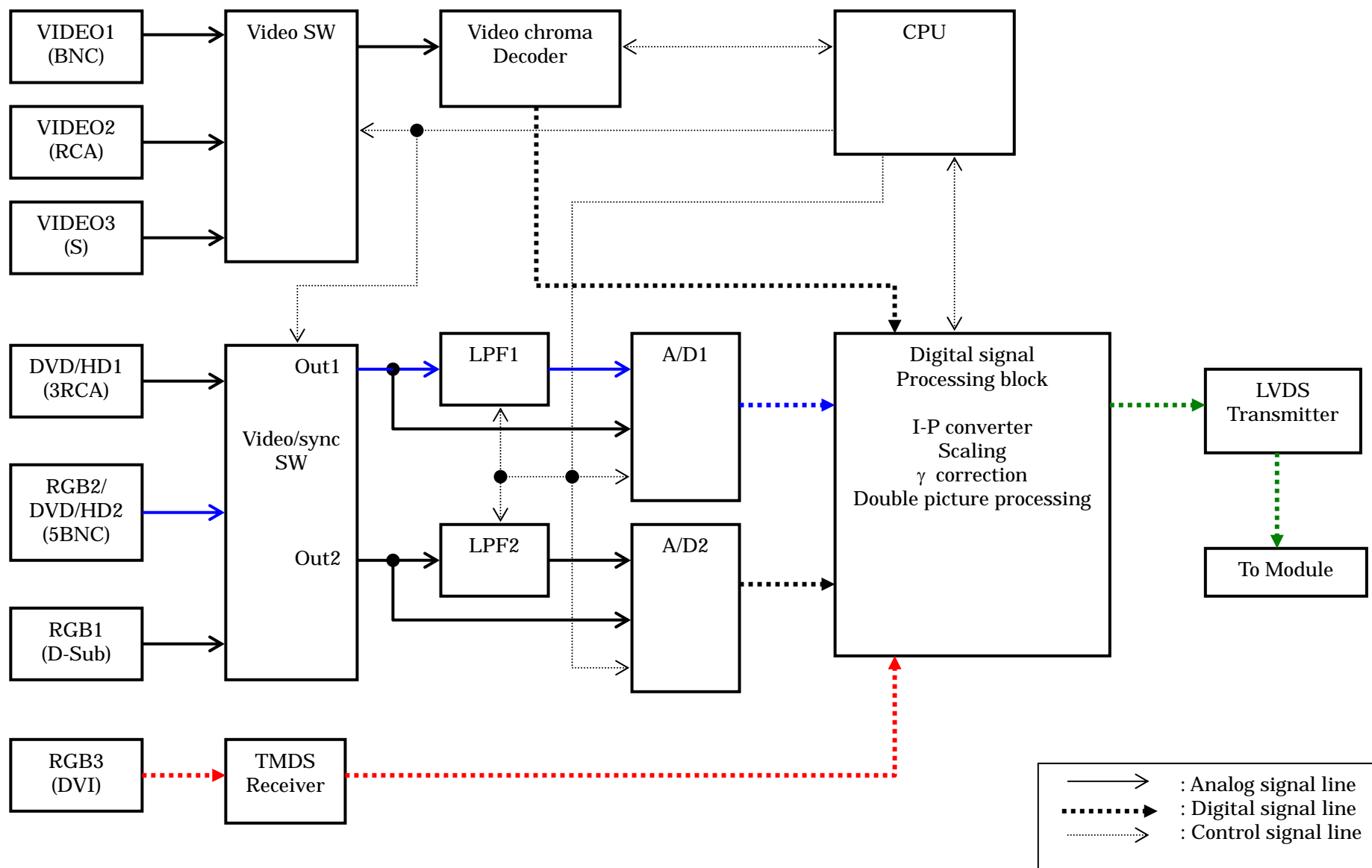
- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(3) When Sub is for chroma signal (DVD/HD2 (5BNC)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB1 is output from the out2 side through the Video/sync SW.
- The signal output from out2 is entered in the A/D2 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

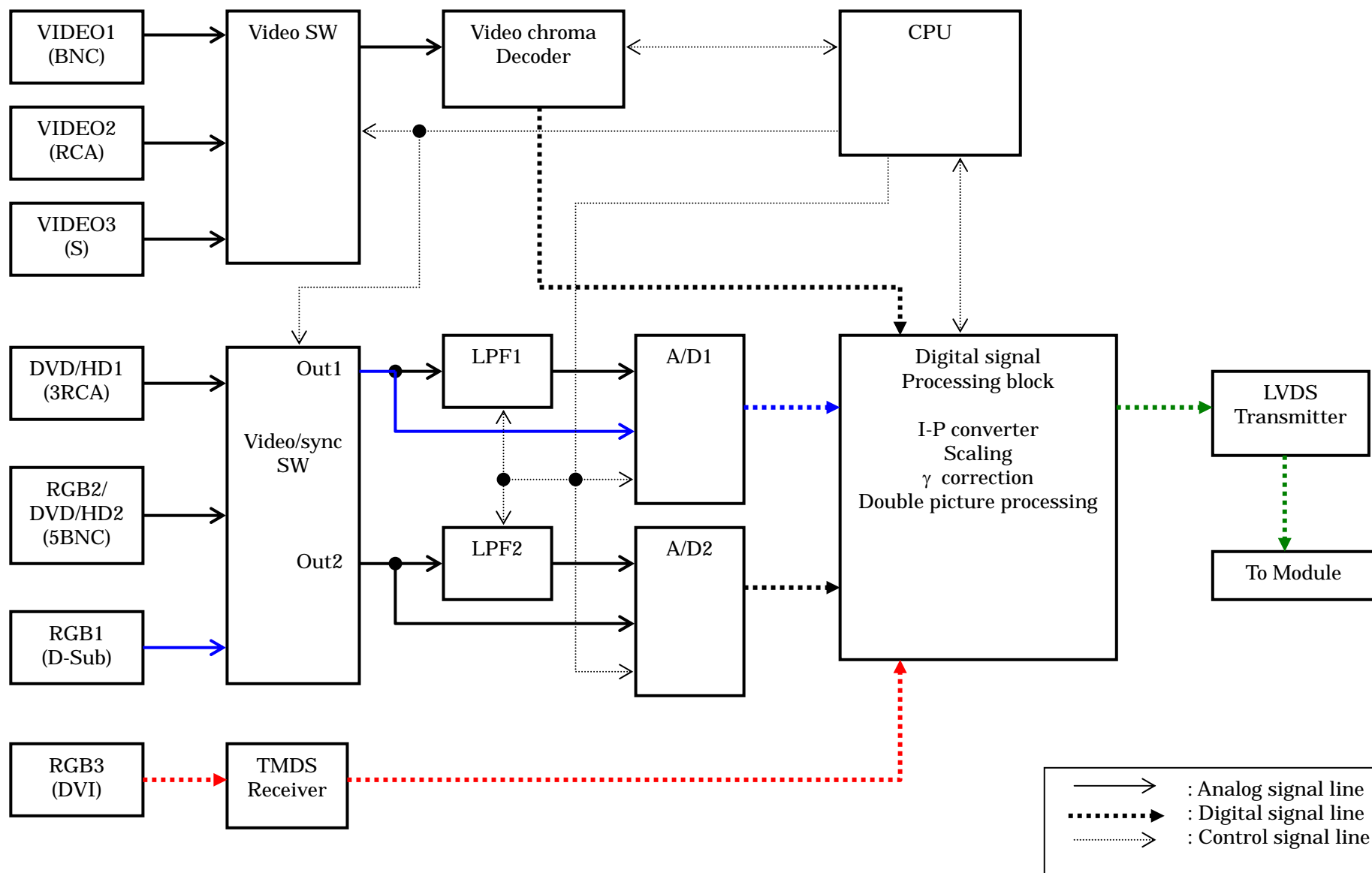
- The chroma signal entered from the DVD/HD1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 passes through the LPF1 and is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(4) When Sub is for PC signal (RGB1 (D-Sub)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

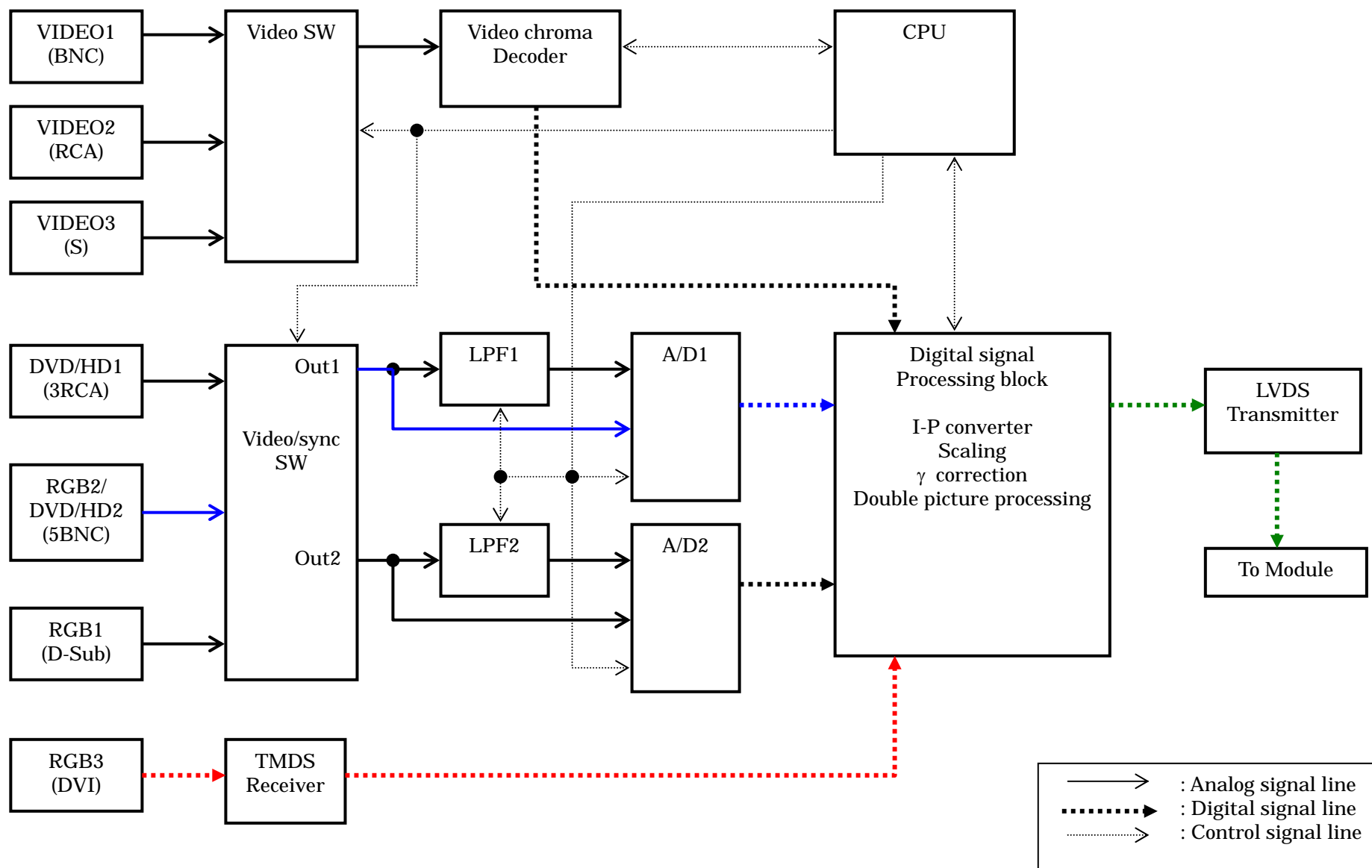
- The PC signal entered from the RGB1 is output from the out1 side through the Video/sync SW.
- The signal output from out1 is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(5) When Sub is for PC signal (RGB2 (5BNC)) input

① Block operation diagram: Red lines show the flow of Main signals. Blue lines indicate the Sub signals and green lines show the flow of synthesized signals.



② Operational descriptions

Main side

- The PC signal entered from the RGB3 is processed in the TMDS receiver for the conversion from the serial digital signal to the parallel digital signal.
- The processed signal input is entered in the digital signal processing block, where various processing of scaling, γ correction, and others is carried out.

Sub side

- The PC signal entered from the RGB2 is output from the out1 side through the Video/sync SW.
- The signal output from out1 is entered in the A/D1 where it is digitized.
- The digitized signal input is entered in the digital signal processing block, where various processing of I-P conversion, scaling, γ correction, and others is carried out.

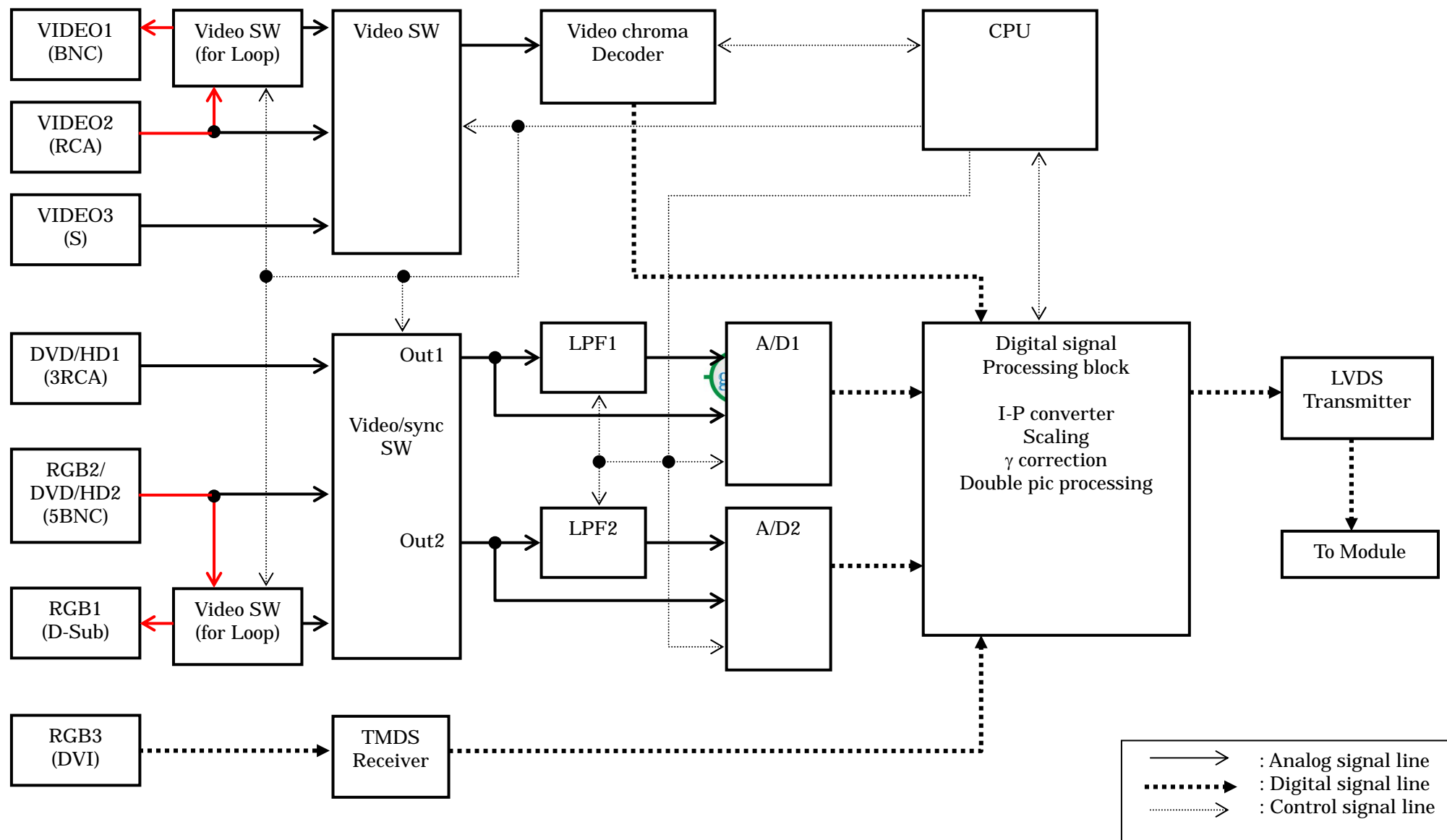
Dual screen synthesis

- The signals processed in Main and Sub respectively are then synthesized in the digital signal processing block.
- After passing through these processes, the signal is entered in the LVDS transmitter and the LVDS signal is generated there. This signal is then applied to the module.

(6) Loop out

① Flow of loop output signals : Red lines show the flow of signals.

• PX-50VM4/61XM3 Series only



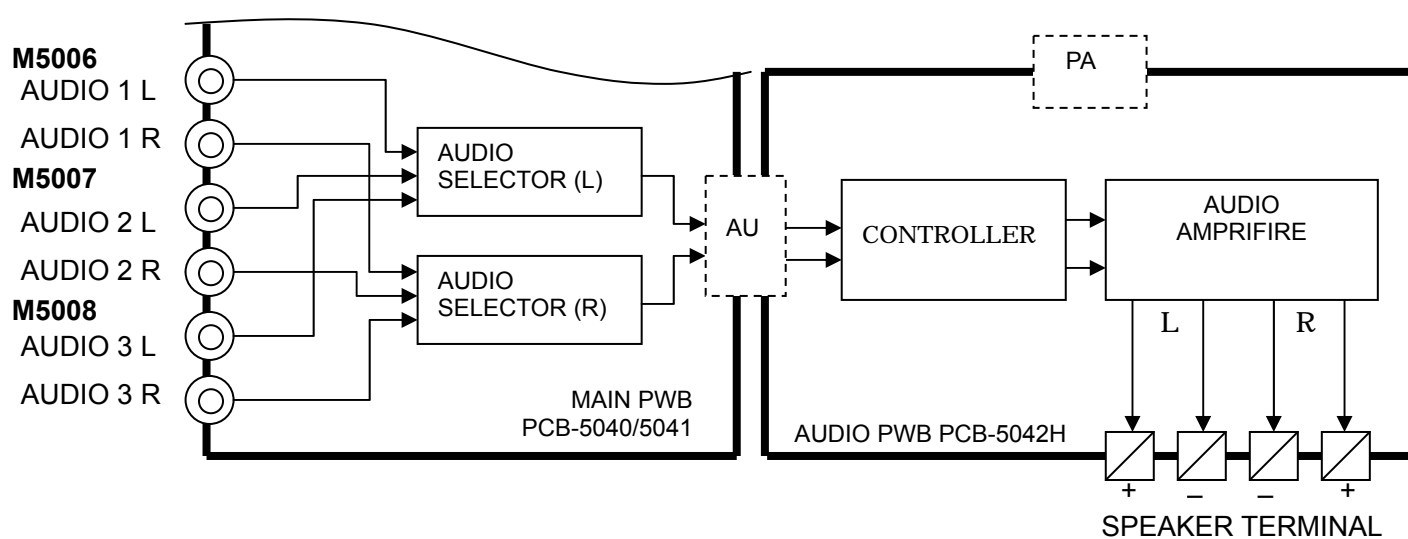
② Operational descriptions

- When the loop output is turned on, the VIDEO1 and RGB1 terminals become available as the appropriate terminals for loop output with the effect of the VIDEO SW (for loop).
- The signal input from the VIDEO2 is obtained from the VIDEO1 terminal, while the signal input from the RGB2 is obtained from the RGB1 terminal.

■Audio signal processing

The L/R AUDIO signals entered from the three systems of M5006, M5007, and M5008 are generated from the RCA terminals located on the monitor side. These signals are controlled and selected by the AUDIO SELECTOR circuit incorporated in the MAIN PWB. The selected AUDIO signals are output from the AU connector to the AUDIO PWB. The L/R signals output on the AUDIO PWB side are controlled at the CONTROLLER for their sound volume, balance, bass, and treble. Since then, the signals are power-amplified at the AUDIO AMPLIFIRE and output to the SPEAKER TERMINAL. The rated speaker load impedance is 6Ω .

The POWER UNIT feeds the DC power from its PA connector to the AUDIO PWB.



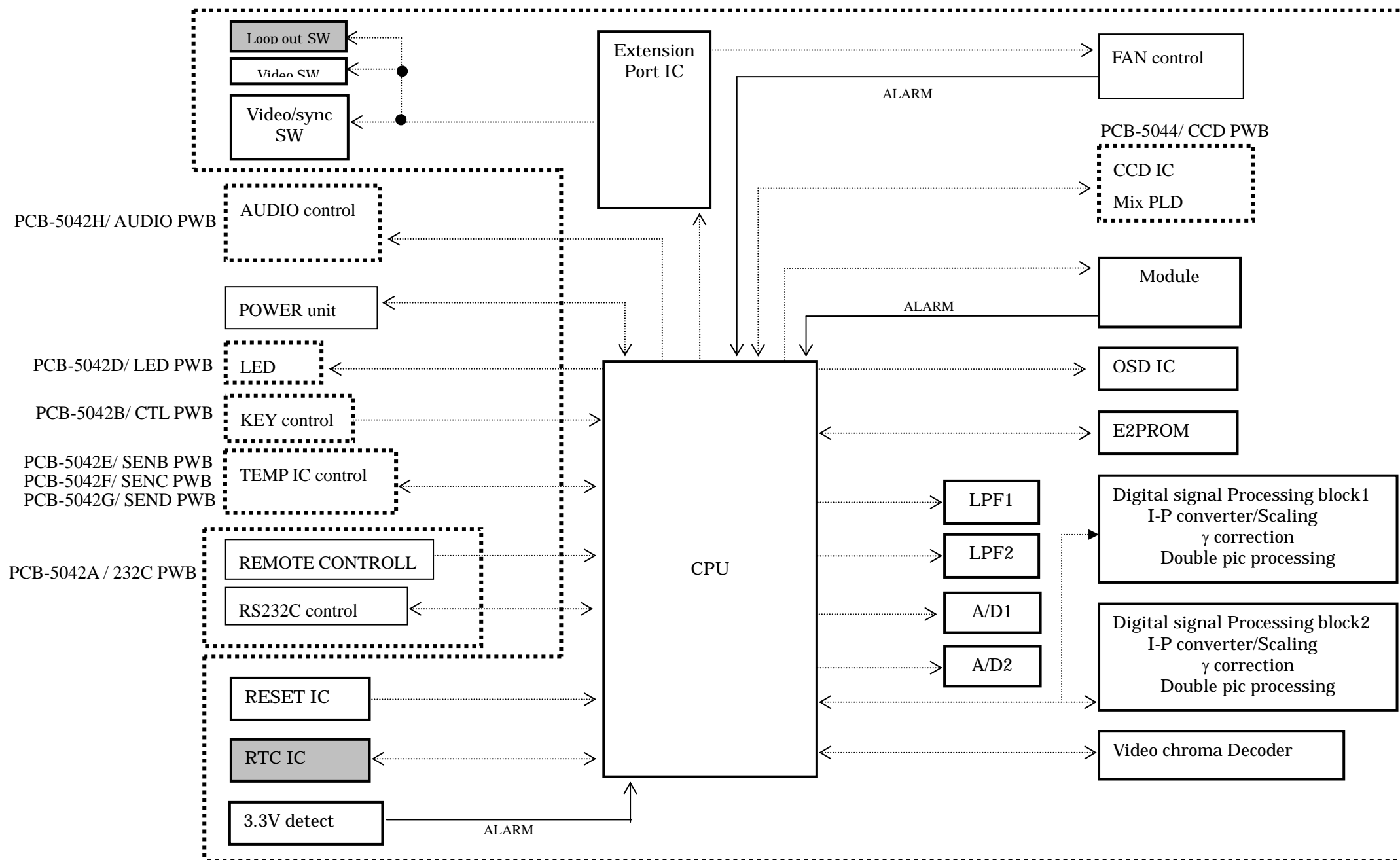
■ CPU

1. Basic configuration diagram

- PX-50XM4/61XM3 only for the gray block
- PX-*****A only for the CCD PWB

PCB-5040 / MAIN PWB : PX-50XM4/61XM3

PCB-5041 / MAIN PWB : PX-50XR4/61XR3



Operation in each CPU block:

- For the purpose of signal changeover via the Extension Port IC based on the input mode, the Video SW and the Video/sync SW are set up.
- For the purpose of audio control (sound volume, balance, and sound quality), the audio control is set up.
- For the power control, power ON/OFF control is conducted for the Power unit.
- LED lighting is set up.
- The key codes are received from the Key control circuit. The key codes are A/D converted in the CPU for code recognition.
- The thermal data from the TEMP IC are received at the CPU. Based on these thermal data, the fan driving voltage is controlled via the Extension Port IC to regulate the fan speed.
- The remote control codes are received from the Remote Control.
- Communication is maintained with the external equipment via the RS232C control block.
- When the power supply is turned on, the CPU is reset with the reset signal sent from the RESET IC.
- During timer function control, the time-related information is received from the RTC IC. At that time, present time is also set up.
- According to the input signal, setting is made for the module. Based on the APL information, brightness control is also carried out.
- During the OSD display, the OSD display data and the OSD position data are set up for the OSD IC.
- Various setup data (input mode, power ON/OFF status, setup values of various user controls, and so on) are stored in the E2PROM.
- For each signal mode, the signal frequency division ratio, clock phase, and signal level are set up for A/D1,2.
- For motion picture signals, the D/A-converted DC voltage information from the CPU is put in the LPF 1,2 in order to set up the cutoff frequency.
- For the purpose of video signal processing (I-P conversion, scaling, gamma correction, and others), the digital signal processing block is set up for each input signal.
- Color system identification is performed by the Video chroma decoder and setting is made based on the color signal for the Video chroma decoder.
- A changeover action is taken between the closed caption mode and the text mode for the CCD IC.

Alarm detection:

- Temperature alarm

If the correct thermal data are not transmitted from the TEMP IC control circuit to Pin 2 (IC2 data) and Pin 1 (IC2 clock) of the TM connector (in such a case, [-] appears in the column of the any temperature sensor T1 ~ T3 where FAN SET is faulty in the service menu), the CPU identifies this condition as a fault in the temperature sensor PWB and causes the LED to blink in green at the intervals of approximately 2 seconds so that the power system can stay in the standby state. In addition, if the internal temperature of the set should exceed about 75°C the LED makes [blinking in red] and the power supply assumes the standby state. To reset the alarming condition, it is necessary to turn [OFF] the main power circuit of the set main unit once and then turn it [ON] again. When the temperature inside the set should exceed the levels specified below, the LED makes [blinking in red] and the power supply assumes the standby state. To reset the alarm condition, it is necessary to turn OFF the mains power supply once in the main unit and turn it ON again.

42VP5/VM5/VR5: Approx. 95°C, 42XM3/XR3: Approx. 82°C, 50XM4/XR4: Approx. 80°C, 61XM3/XR3: Approx. 75°C

- FAN alarm

When an “L” level signal input is applied from the FAN to Pin 3 of any one of the FA, FB, and FC connectors, the CPU identifies this condition that any of the fans has stopped. The LED is then made to blink in green at the intervals of about 0.5 seconds so that the power standby state is assumed. To reset the alarming condition, it is necessary to turn [OFF] the main power circuit of the set main unit once and then turn it [ON] again.

- Module alarm

When an “L” level signal input is applied from the Module to pin 3 of the AD, the CPU identifies this condition as an error detected in the module. The LED is then made to light in red and green reciprocally so that the power standby state is assumed. To reset the alarming condition, it is necessary to turn [ON] the main power circuit of the main unit while the [Input Selector] key is kept pressed at the set main unit. At that time, the [Input Selector] key of the main unit must be kept pressed for more than 2 seconds.

- Source voltage alarm

When voltage at pin 1 (D3.3V) of the PN connector should remain to be “2.5V or below” for about 30 seconds, the CPU identifies this condition as a source voltage error and causes the LED to light in red so that the power standby state is assumed. To reset the alarming condition, it is necessary to turn [OFF] the main power circuit of the set main unit once and then turn it [ON] again.